



# REPORT

ON THE

**Health of the County  
Borough of Belfast  
for the Year 1966**

Dr. JAMES McA. TAGGART  
*Medical Officer of Health*





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# Health Committee

## 1966

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**Chairman:**

Councillor JOHN WESLEY CAMPBELL

**Deputy Chairman:**

Councillor JOHN SAMUEL ROLSTON HARCOURT

**Aldermen:**

THOMAS GIBSON HENDERSON

THE RT. HON. THE LORD MAYOR OF BELFAST  
(Major William Duncan Geddis, J.P.)

**Councillors:**

JOHN SAMUEL ROLSTON HARCOURT

Miss IRENE MARGARET ELIZABETH McALERY

WILLIAM BOUCHER, J.P.

HUGH ROBERT BROWN, M.Com.Sc.

JOHN WESLEY CAMPBELL

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JAMES MARTIN KIRK McCARROLL

Dr. KENNETH BEW (Deceased)

JOHN BLACK

GERARD FITT, M.P.

PATRICK O'DONNELL FOX

JOHN GERARD O'HARE

GERALD THOMPSON

**HEALTH DEPARTMENT**  
**STAFF AS AT 1st AUGUST, 1967**

---

Medical Officer of Health and Port Medical Officer:—

J. McA. Taggart, M.B., B.Ch., D.P.H., D.P.A., F.R.S.H.

Deputy Medical Officer of Health and Deputy Port Medical Officer:—

W. J. McLeod, M.D., D.P.H., D.P.A., Ph.C.

**HEADQUARTERS:—**

Administrative Officer:— S. N. Smith, B.Com.Sc.

**Administrative Branch:—**

3 Receptionist/Operators.

**Accounts Branch:—**

1 Executive Assistant; 1 Clerical Officer; 3 Clerical Assistants.

**Stores Branch:—**

1 Clerk Higher Division Grade I; 1 Clerical Officer; 2 Clerical Assistants; 1 Storekeeper; 2 Storemen.

**Registration Branch:—**

Superintendent Registrar of Births, Deaths and Marriages — T. S. McMonagle.

1 Deputy Supt. Registrar; 4 Registrars; 3 Deputy Registrars; 2 Typists.

**Typing Branch:—**

1 Supervisor of Typists; 5 Shorthand Typists; 2 Typists.

**ENVIRONMENTAL HEALTH DIVISION:—**

Senior Medical Officer—vacant.

Executive Officer—G. H. Davis, E.R.D.

**Infectious Diseases Branch:—**

Medical Officer—J. A. Gilmore, M.B., D.P.H.

1 Clerk Higher Division Grade II; 8 Clerical Assistants.

**Sanitary Branch:—**

Chief Public Health Inspector —W. Jenkins.

Senior Food Inspector —R. J. Coulter

Senior Pests and Disinfecting Officer —W. Robinson

Senior Inspector of Factories and Shops —P. J. McMahon

Senior Smoke Officer —C. Ellison.

Senior Port Public Health Inspector —W. A. McBride

Senior Housing Inspector —A. Bunting

Divisional Public Health Inspector, South —W. N. Shields

Divisional Public Health Inspector, West —F. W. Hill

Divisional Public Health Inspector, East —T. F. Mills

Divisional Public Health Inspector, North —J. Thompson

7 Food and Drugs Inspectors; 2 Port Public Health Inspectors; 3 Factory and Shops Inspectors; 1 Smoke Inspector; 3 Housing Inspectors; 18 Public Health Inspectors; 6 Pests Officers; 12 Pupil Public Health Inspectors.

1 Clerk Higher Division Grade I; 2 Clerks Higher Division Grade II; 1 Clerk Higher Division Grade III; 4 Clerical Officers; 8 Clerical Assistants; 1 Notice Server; 4 Drivers; 1 Attendant (Disinfecting Station); 1 Labourer.

**Meat Inspection Branch:—**

City Veterinarian—J. F. Gracey, Ph.D., B.Agr., M.R.C.V.S., D.V.S.M.

Asst. City Veterinarian—W. T. Morrow, B.V.M.S., M.R.C.V.S.

Senior Meat Inspector—S. J. C. Boyd.

6 Meat Inspectors; 1 Typist.

## **MATERNITY AND CHILD HEALTH DIVISION:—**

- Senior Medical Officer — H. A. Warnock, M.D., B.Sc., D.P.H.  
Clinic Medical Officer — K. M. Cathcart, M.B., D.P.H.  
12 Part-time Medical Officers  
Superintendent Nursing Officer — Miss M. F. J. Baird, M.B.E., S.R.N., S.C.M., H.V.Cert.  
Deputy Superintendent Nursing Officer — Miss J. Stirling, S.R.N., S.C.M., H.V.Cert.  
Superintendent of District Nurses — Miss H. A. Harris, S.R.N., S.C.M., H.V.Cert., Q.N.  
Supervisor of Midwives — Mrs. M. A. Whinnery, S.R.N., R.S.C.N., S.C.M.  
Area Superintendent Health Visitors — Miss K. Smyth, S.R.N., S.C.M., H.V.Cert., T.A.Cert.  
— Miss D. E. McFarland, S.R.N., S.C.M., H.V.Cert.  
First Assistant Superintendent of District Nurses:—  
Miss M. L. Lester, S.R.N., S.C.M., H.V. Cert., Q.N.  
53 Health Visitors; 6 Trainee Health Visitors; 51 District Nurses; 1 Staff Nurse; 4 Enrolled Nurses; 2 Senior Midwives; 23 Midwives (salaried); 3 Midwives, (fee-per-case).  
Chiropodists : 4 full-time, 6 part-time.  
Administrative Assistant — A. Watson, A.C.I.S.  
1 Higher Division Clerk, Grade II; 1 Higher Division Clerk Grade III; 2 Clerical Officers; 2 Shorthand Typists; 1 Typist; 13 Clerical Assistants; 10 Clinic Clerks (part-time); 3 Cook-Housekeepers; 4 Clinic Caretakers

## **SCHOOL HEALTH DIVISION:—**

- Senior Medical Officer — A. L. Walby, M.B., D.P.H.  
Clinic Medical Officers:— A. D. Campbell, M.B., D.P.H.  
E. A. M. McMordie, M.B., D.P.H.  
P. S. Kerr, M.B., D.P.H.  
K. McKee, M.D., D.P.H., D.C.H.  
Medical Officers: — E. E. Mercer, M.B., D.P.H.  
D. B. Keith, M.B., D.P.H.  
G. K. Moffatt, M.B., D.P.H.  
K. M. Corbett, M.D., B.Sc., D.P.H., D.C.H.  
S. G. Gordon, M.B., B.S., M.R.C.S., L.R.C.P., D.P.H., D.C.H., D.T.M.H.  
F. L. O'Rourke, M.B., D.P.H.  
D. C. Oswald, M.B., D.P.H.  
R. M. Meyers, M.B., B.A.O.  
1 Part-time Medical Officer  
Chief Dental Officer: — S. R. Sheane, L.D.S.  
Clinic Dental Officers: — V. M. G. Rattie, L.D.S.  
H. C. Thornberry, L.D.S.  
P. J. R. Griffith, M.B., L.D.S.  
J. R. Faulkner, L.D.S.  
Dental Officers: — T. S. Brannigan, L.D.S.  
W. J. Hutchinson, L.D.S.  
J. S. Jassal, L.D.S.  
W. J. C. Davidson, L.D.S.  
Mrs. D. Bolton, L.D.S.  
J. A. Gow, L.D.S.  
C. A. Fetherston, L.D.S.  
3 Part-time Medical Officers (Anaesthetists); 2 Part-time Dental Officers.  
4 Senior School Nurses; 18 Health Visitors; 9 Trainee Health Visitors; 6 Clinic Nurses; 1 Speech Therapist; 5 Speech Therapists (part-time); 2 Physiotherapists; 1 Chief Dental Clerk; 3 Senior Dental Surgery Assistants; 27 Dental Surgery Assistants.  
Executive Officer — W. W. Magowan.  
1 Clerk Higher Division Grade II; 2 Clerical Officers; 4 Shorthand Typists; 5 Typists; 1 Senior Clerical Assistant; 9 Clerical Assistants; 2 Clinic Caretakers; 1 Clinic Attendant.



CITY AND COUNTY BOROUGH OF BELFAST

SUMMARY OF STATISTICS, 1966

LATITUDE 54° 35" N.: LONGITUDE 5° 55" W.

AREA (Census 1961: excluding 2,237 acres tidal water): 15,815 acres (24.7 sq. miles)

POPULATION (Estimate of Registrar-General, 30th June, 1966: { 402,900  
(Census, October, 1966 — 399,270) (Males 189,700)  
(Females 213,200)

POPULATION per acre: 25; per square mile: 16,310.

INHABITED BUILDINGS (Census 1966): 116,101.

RATEABLE VALUATION (1966/67): £5,250,285.

PRODUCT OF A PENNY RATE (1966/67): £20,820.

MARRIAGES: 3,569; MARRIAGE RATE RATE: 8.9

	1966	1965	Average 1956/65
Live Births (M. 4,296; F. 4,020) ..	8,316	8,447	8,548
Rate .. .. .	20.6	20.8	20.1
Still Births (M. 81; F. 83) ..	159	150	211
Rate (per 1,000 total births) ..	19	17	24.1
Illegitimate Live Births (M. 136; F. 150)	286	299	231
Per cent. of Live Births .. ..	3.4	3.5	2.7
Deaths (M. 2,575; F. 2,508) ..	5,083	4,745	4,800
Rate .. .. .	12.6	11.7	11.3
Infant Deaths (M. 152; F. 112) ..	264	232	258
Rate (per 1,000 live births) ..	32	27	30
Neo-natal Deaths (M. 87; F. 71) ..	155	152	171
Rate (per 1,000 live births) ..	19	18	20.0
Peri-natal Deaths (M. 150; F. 146) ..	291	287	360
Rate (per 1,000 total births) ..	34	33	41.1
Maternal Deaths .. .. .	Nil	2	4
Rate (per 1,000 total births) ..	0	0.23	0.5

	Deaths	Death Rate
Measles	1	0.00
Diphtheria	Nil	—
Whooping Cough	1	0.00
Dysentery	Nil	—
Poliomyelitis	Nil	—
Influenza	106	0.26
Tuberculosis (respiratory)	22	0.05
Tuberculosis (other forms)	2	0.00



To:

**The Right Honourable The Lord Mayor, Aldermen and Councillors of the Belfast County Borough Council acting as the Belfast Health Authority and the Belfast Port Sanitary Authority.**

My Lord Mayor, Ladies and Gentlemen,

I have pleasure in presenting my report on the work of the Health Department and the health of the City for the year 1966.

*Population:*

The Registrar General estimates the population in June 1966 as 402,900 (males 189,700; females 213,200), a reduction of 3,900 compared with 1965. The population figure at the October, 1966, census was 399,270.

*Births and Deaths:*

There was a reduction in the number of live births registered, 8,316, (males 4,296; females 4,020) giving a birth rate of 20.6 as compared with 8,447 (birth rate 20.8) in 1965. Infant mortality showed a slight increase, there being 264 deaths of infants in the first year of life, compared with 232 in 1965. This represents a rate of 32 per 1,000 live births. Both neo-natal death rate (deaths during the first month of life) and peri-natal death rate (stillbirths and deaths during first week of life) showed slight increases, the figures being 19 and 34 respectively as against 18 and 33 in 1965.

The percentage of total registered births taking place in institutions was 87.6 as against 83.2 for 1965. This is in keeping with the trend in recent years for mothers, who prefer to have their babies in hospital rather than in their own homes. There will be a shortage of maternity beds in hospitals and maternity units for some years to come but this will be off-set by mothers being discharged from hospital much earlier than hitherto. Where the confinement has been normal and home conditions are suitable, many mothers will in future be discharged as early as 48 hours after their babies are born.

The number of deaths at all ages registered during the year was 5,083, (males 2,575; females 2,508) showing an increase on 1965 when the number registered was 4,745. The 1966 death rate was 12.6 per 1,000 of the population.

For the first time on record, no deaths from maternal causes occurred during the year.

*Cancer:*

Deaths from all forms of cancer numbered 844 as against 810 in 1965, there being 15 more deaths from cancer of the lung and respiratory system than in the previous year. Although there are promising signs of a decrease in the number of cigarette smokers in the population and clear evidence of decreased lung cancer mortality among doctors, many of whom have stopped smoking or have altered their smoking habits, the public have not accepted the clear evidence of the positive association between cigarette smoking and lung cancer. Much more intensive and prolonged health education of children of school age is clearly required.

*Tuberculosis:*

Deaths from all forms of tuberculosis, 24, showed a decrease of 6 from the figure for 1965, representing a death rate of 0.05 per 1,000 population. Following the rise in the number of new cases of pulmonary tuberculosis notified in 1965, there has been an encouraging drop in incidence in 1966, 146 new cases being notified, or 28 fewer than in the previous year.

*Infectious Disease:*

With the exception of gastro-enteritis, which showed an increase during the year, the incidence of infectious disease was again well below the average of recent years. One case of poliomyelitis was notified but this did not prove to be a case of recent origin and laboratory confirmation of the diagnosis was not possible. The usual procedure of immunisation of contacts (close and remote) was however adopted. An added duty which has fallen to our Medical Officers is the surveillance of Commonwealth

immigrants and other foreign nationals who come to our shores for a variety of reasons, some to work in the catering and allied trades, others to study for higher qualifications or take up lectureship appointments in Northern Ireland.

### *Prevention of Cancer:*

Owing to the shortage of qualified laboratory technicians it has not been possible to expand the cervical cytology service as had been hoped. Nevertheless four cytology sessions were arranged weekly at three centres throughout the year. At these centres women have an opportunity of discussing all aspects of cancer prevention with women doctors and health visitors. In addition to taking the cervical smear for the early detection of cancer of the neck of the womb, further examinations are carried out to detect other abnormalities. Women are also instructed in the technique of self-examination of the breasts with a view to detecting cancer of the breast in its earliest stages. This is the most common form of cancer in women, being responsible for 66 deaths in 1966. Patients with abnormalities detected at cancer prevention clinics are referred to their family doctors for further investigation and appropriate treatment.

### *Care of the Elderly:*

Care of the elderly in the community will continue to impose an ever-increasing burden on the various services provided by the Health Department. These involve mainly the home nursing, health visiting and chiropody services. The chiropody service, mainly owing to the national shortage of qualified chiropodists, is finding increasing difficulty in giving elderly patients prompt and frequent treatment. At the end of the year 81 sessions were being held weekly, 4 full-time and 5 part-time chiropodists being employed. During the year 7,467 persons received treatment; 19,087 treatments were carried out – 14,806 at clinics and 4,281 in patients' homes. Due to staff shortage and heavy demand on this service there was, at the end of the year, a delay of up to 3 months in providing treatment. This is an unsatisfactory state of affairs which will continue until sufficient chiropodists are trained. The possibility of establishing a training school for chiropodists in Northern Ireland may have to be considered if the efficiency of this essential service is not to be seriously jeopardised.

### *Liaison with Hospitals and General Practitioners:*

The value of close liaison between local authority, health visiting and nursing staff is becoming more widely appreciated and it is pleasing to report an encouraging degree of co-operation. As doctors' practices in the City tend to be very scattered and health visitors are allocated to geographical areas, exclusive attachment of health visitors to practices is not practicable except in the case of one large group practice. However, formal attachment has been established between 52 doctors and 20 health visitors and these numbers will be increased as present staff shortages are overcome and more doctors combine in group practice. A number of health visitors who have been specially trained in the care of the mentally ill devote part of their time to the visitation of these patients in their homes. They visit mental hospitals and work in close association with Psychiatrists and Psychiatric Social Workers. Two health visitors are also engaged in the supervision of diabetic patients in the community, being attached to the metabolic unit of the Royal Victoria Hospital. A further example of close co-operation between health visitors and hospital staffs is seen in the visitation of tuberculosis and chest cases under the guidance of Chest Physicians of the Central Chest Clinic. It has also been possible, for several years, to arrange for domiciliary midwives to assist general practitioners in running their ante-natal clinics. This co-operation is of great value in ensuring continuity of ante-natal care and prompt attendance to expectant mothers.

### *General Sanitary Services:*

With the additional work involved in slum clearance and redevelopment and the implementation of the Offices and Shops and Clean Air legislation, even greater demands are being made on the hard-worked public health inspectorate. Throughout the year this branch of the department continued to work well under strength, a state of affairs which may continue for some years owing to age retirements. The maximum number of students permitted by the Public Health Inspectors Examination Board (15 students) are at present under training in the department. The present course of training for public health inspectors covers a period of 3 years, the student being engaged for six months of each year on practical work in the Health Department of his training authority.

With the passing of the Clean Air Act (N.I.) 1964, local authorities were given power for the first time to clear the atmosphere over their towns and cities. The industrial provisions of the act ensure that, within seven years, dark smoke from factory chimneys will be largely eliminated. Industrialists are putting their house in order and less smoke than previously is now emitted from factory sources. More than half the smoke in the atmosphere comes from the domestic open fire burning raw coal and it can only be through the establishment of Smoke Control Areas that the problem will be eventually solved. In December 1966, the Health Committee submitted their proposals for a five year phased smoke control programme to the Ministry of Health and Social Services. This entails the setting up of five smoke control areas including a total of 11,283 houses, and covering an area of 1,503 acres. The first area bounded by West Circular Road, Springfield Road, the City Boundary and Ballygomartin Road should be in operation in October 1968.

This report contains statistical information as required by the Ministry of Health and Social Services and the officers in charge of each section give a detailed account of the various duties carried out by each division.

I would like to express my grateful thanks to the Chairman and members of the Health Committee for their continuing support and encouragement in furthering the cause of health in the City; to the Town Clerk, the Deputy Town Clerk, Heads and other officers of Corporation Departments with whom my work is closely associated and finally the staff of the Health Department for their continued conscientious service and for their loyalty, co-operation and support throughout the year.

I have the honour to be

My Lord Mayor, Ladies and Gentlemen,

Your obedient servant,

J. McA. TAGGART,

*Medical Officer of Health and Port Medical Officer.*



CAUSES OF DEATH AT DIFFERENT AGE PERIODS, 1966

TABLE 1

Abbre- viated List Nos.	Causes of Death	Total Deaths	MALES											FEMALES													
			All Ages	AGED							Total Under 1 year	1-4	5-14	15-24	25-44	45-64	65-74	75 & over	All Ages	Under 1 year	1-4	5-14	15-24	25-44	45-64	65-74	75 & over
				Under 1 year	1-4	5-14	15-24	25-44	45-64	65-74																	
	All Causes	5,083	2,575	87	55	10	152	22	18	37	107	753	750	736	2,508	68	29	15	112	20	8	20	74	456	634	1,184	
B1	Tuberculosis of Respiratory System	22	18	—	—	—	—	—	—	—	—	6	9	3	4	—	—	—	—	—	—	—	—	3	—	1	
B2	Tuberculosis, other Forms	2	1	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	1	—	
B3	Syphilis and its sequelae	7	4	—	—	—	—	—	—	—	—	2	—	2	3	—	—	—	—	—	—	—	—	—	1	2	
B4	Typhoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B5	Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B6	Dysentery, all Forms	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B7	Scarlet Fever and streptococcal sore throat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B8	Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B9	Whooping Cough	1	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B10	Meningococcal Infections	2	1	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	
B11	Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B12	Acute Poliomyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B13	Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B14	Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B15	Typhus and other Rickettsial diseases	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	
B16	Malaria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B17	Other Infections and Parasitic Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
B18	Malignant Neoplasms, including neoplasms of lymphatic and haematopoietic tissues	9	5	—	—	—	—	—	—	1	—	3	1	—	4	—	—	—	—	—	1	—	1	—	1	1	
	(a) Cancer	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	(b) Hodgkin's disease and Leukaemia	844	456	—	—	—	—	2	—	4	23	175	153	99	388	—	—	—	—	2	2	2	22	130	112	118	
B19	Benign and unspecified neoplasms	30	18	—	—	1	—	1	—	3	3	6	4	1	12	—	—	—	—	—	—	1	—	1	4	4	
B20	Diabetes Mellitus	11	8	—	—	—	—	—	1	—	—	4	2	1	3	—	—	—	—	—	—	—	—	—	1	1	
B21	Anaemias	35	12	—	—	—	—	—	—	—	1	4	3	4	23	—	—	—	—	—	—	—	1	3	10	9	
B22	Vascular Lesions affecting Central Nervous system	19	8	—	—	—	—	—	—	—	1	1	4	2	11	—	—	—	—	—	—	—	—	—	3	7	
B23	Nonmeningococcal Meningitis	615	213	—	—	—	—	—	—	2	6	55	67	83	402	—	—	—	—	—	—	1	4	68	97	232	
B24	Rheumatic Fever	6	5	—	—	1	1	—	1	1	—	—	2	—	1	—	—	—	1	—	—	—	—	1	—	—	
		2	1	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	



**TABLE 2**

Age Group (Years)	Deaths			Rate per 1,000 of population of age group (based on 1961 Census figures)	Percentage of total deaths
	Male	Female	Total		1966
Under 1 year	152	112	264	31.5	5.2
1—4	22	20	42	1.4	0.8
5—14	18	8	26	0.7	0.5
15—24	37	20	57	0.9	1.1
25—44	107	74	181	1.8	3.6
45—64	753	456	1,209	12.1	23.8
65—74	750	634	1,384	49.1	27.2
75 and over	736	1,184	1,920	139.0	37.8

Principal causes of death in order of importance

**TABLE 3**

1.	Heart disease (B26-27)	1,442
2.	Cancer	844
3.	Vascular lesions affecting the central nervous system	615
4.	Bronchitis	429
5.	Pneumonia	365
6.	Violent and accidental deaths	180
7.	Influenza	106
8.	Hypertension	92
9.	Congenital malformations	82
10.	Associated with prematurity	75
11.	Chronic rheumatic heart disease	74

Comparative Statistics for Counties and County Boroughs, 1966

**TABLE 4**

Area	Rate per 1,000 population				Rate per 1,000 births		Still-birth rate per 1,000 total births	Accidenta deaths
	Marriage	Birth	Death	Death rate from tuber- culosis	Infant mortality (1,000 live)	Maternal mortality (1,000 total)		
Northern Ireland	7.3	22.5	11.1	0.04	26	0.18	16	564
Belfast C. B.	8.9	20.6	12.6	0.06	32	0	19	144
Londonderry C. B.	7.9	28.7	10.6	0	30	0	28	16
Co. Antrim	7.0	23.9	10.2	0.04	24	0.40	13	107
Co. Armagh	7.1	24.0	10.4	0.01	22	0	13	52
Co. Down	6.0	20.4	11.1	0.04	25	0.34	16	123
Co. Fermanagh	5.9	18.7	11.7	0.02	19	0	20	16
Co. Londonderry	6.7	25.4	9.7	0.04	21	0	14	56
Co. Tyrone	6.7	24.1	10.7	0.02	21	0.30	14	50

**TABLE 5**

Year	Heart disease		Cancer		Pulmonary tuberculosis		Bronchitis, Influenza and Pneumonia	
	Number	Rate per 1,000	Number	Rate per 1,000	Number	Rate per 1,000	Number	Rate per 1,000
1910	—	—	—	—	825	2.1	1,538	3.9
1915	—	—	—	—	813	2.0	1,667	4.1
1920	—	—	—	—	762	1.8	1,566	3.8
1925	—	—	—	—	575	1.3	1,163	2.7
1930	852	2.0	466	1.12	346	1.0	839	2.0
1935	935	2.0	463	0.99	389	0.89	1,042	2.23
1940	1,387	3.1	576	1.29	412	0.93	1,001	2.25
1945	1,130	2.59	664	1.52	326	0.75	533	1.22
1950	1,500	3.33	717	1.59	225	0.5	565	1.26
1955	1,365	3.0	741	1.6	76	0.17	597	1.3
1956	1,297	2.9	840	1.89	74	0.16	471	1.06
1957	1,383	3.14	844	1.9	60	0.13	592	1.34
1958	1,493	3.42	822	1.88	56	0.13	549	1.25
1959	1,443	3.33	802	1.85	62	0.16	657	1.51
1960	1,476	3.4	793	1.84	28	0.07	546	1.25
1961	1,425	3.4	763	1.83	35	0.08	876	2.1
1962	1,428	3.45	777	1.87	39	0.09	520	1.25
1963	1,616	3.92	788	1.91	52	0.13	672	1.63
1964	1,433	3.5	794	1.94	34	0.08	580	1.41
1965	1,495	3.67	810	1.99	27	0.07	633	1.55
1966	1,442	3.58	844	2.09	22	0.05	900	2.24

— Signifies information not available

**Comparative Statistics: Belfast, Northern Ireland, England and Wales,  
Scotland and Irish Republic, 1966**

**TABLE 6**

	Belfast	Northern Ireland	England and Wales	Scotland	Irish Republic
1. Rates per 1,000 population:					
Marriages	8.9	7.3	8.0	8.1	5.8
Birth	20.6	22.5	17.7	18.6	21.6
Death	12.6	11.1	11.7	12.3	12.1
2. Death rate per 1,000 births:					
Maternal	Nil	0.18	0.26	0.24	0.29
Infant	32	26	19	23	25
3. Death rates per 100,000 population:					
Tuberculosis	6.0	3.9	4.9	5.6	11.8
Cancer	209	164	217	223	173
Heart diseases (B25-28)	393	392	379	414	413
Coronary disease	257	219	235	270	196
Diphtheria	Nil	Nil	0.01	Nil	Nil
4. Still-birth rate per 1,000 total births	19	16	15	16	—



Population, births, birth rate per 1,000, deaths, death rate per 1,000 and natural increase from 1890

**TABLE 7**

Year	Population	Births		Deaths		Natural increase
		Number	Rate	Number	Rate	
1890	232,222	8,250	35.5	6,861	29.5	1,389
1895	295,000	9,772	33.1	7,168	24.3	2,604
1900	359,000	11,192	31.2	7,642	21.3	3,550
1905	360,000	11,395	31.8	7,178	20.0	4,217
1910	391,167	10,888	27.8	7,284	18.6	3,604
1915	403,000	10,196	25.3	7,220	17.9	2,976
1920	413,000	12,144	29.4	7,234	17.5	4,910
1925	438,000	10,234	23.4	6,131	14.0	4,103
1930	415,151	9,558	22.7	5,451	12.9	4,107
1935	415,151	8,848	21.3	6,238	15.0	2,610
1940	444,500	8,704	19.6	6,583	14.8	2,121
1945	435,900	9,853	22.6	5,069	11.6	4,784
1950	450,000	8,834	19.6	5,082	11.3	3,752
1955	453,900	8,100	17.8	4,752	10.5	3,348
1956	444,800	8,212	18.5	4,632	10.4	3,580
1957	440,100	8,459	19.2	4,899	11.1	3,560
1958	436,200	8,263	18.9	4,818	11.0	3,445
1959	433,800	8,365	19.3	4,821	11.1	3,544
1960	433,900	8,736	20.1	4,737	10.9	3,999
1961	416,500	8,806	21.1	4,989	12.0	3,817
1962	413,900	8,636	20.9	4,594	11.1	4,042
1963	412,000	8,839	21.5	5,046	12.2	3,793
1964	410,300	8,719	21.3	4,717	11.5	4,002
1965	406,800	8,447	20.8	4,745	11.7	3,702
1966	402,900	8,316	20.6	5,083	12.6	3,233

TABLE 8

Detailed List Nos.	Sites	Males	Females
	<b>Buccal Cavity and Pharynx</b>		
140	Lip	2	—
141	Tongue	1	—
142	Salivary gland	2	—
143—144	Mouth	2	1
145—148	Pharynx	5	4
	<b>Digestive Organs and Peritoneum</b>		
150	Oesophagus	16	15
151	Stomach	66	62
152—153	Intestines	33	54
154	Rectum	21	20
155—156	Biliary passages and liver	6	13
157	Pancreas	18	19
158	Peritoneum	4	3
159	Other digestive organs	1	—
	<b>Respiratory System</b>		
160	Nose, nasal cavities, etc.	1	3
161	Larynx	8	3
162—163	Trachea, bronchus and lungs	173	28
164	Mediastinum	—	—
165	Thoracic organs (secondary)	—	1
	<b>Breast and Genito-Urinary Organs</b>		
170	Breast	2	66
171—174	Uterus	—	24
175	Ovary, Fallopian tube and broad ligament	—	23
176	Other female genital organs	—	1
177	Prostate	32	—
178	Testis	3	—
179	Other male genital organs	1	—
180	Kidney	5	3
181	Bladder and other urinary organs	15	7
	<b>Other and Unspecified Sites</b>		
190—191	Skin	3	2
192	Eye	—	—
193	Brain and other parts of the nervous system	12	6
194	Thyroid gland	1	1
195	Other endocrine glands	—	—
196	Bone	6	6
197	Connective tissue	—	—
198—199	Other Sites	9	14
200—202 } 203—205 }	Neoplasms of lymphatic and haematopoietic tissues (exclusive of Hodgkin's disease, leukaemia, etc.)	8	9
	Total	456	388

## Deaths from certain communicable diseases from 1890

TABLE 9

Year	Meningo- coccal infections	Diph- theria	Dysentery	*Gastro- Enteritis	Measles	Polio- myelitis	Scarlet fever	Typhoid fever	Whooping cough	Influenza
1890	—	37	—	247	378	—	41	177	292	—
1895	—	34	—	325	197	—	88	184	109	—
1900	—	54	—	241	42	—	14	261	115	—
1905	—	32	—	295	227	—	35	128	24	—
1910	3	27	—	241	504	—	18	18	259	—
1915	39	27	—	240	177	0	107	10	134	—
1920	4	45	1	223	132	0	94	34	84	243
1925	0	38	0	203	167	0	49	18	99	84
1930	—	22	0	116	6	—	7	2	65	38
1935	0	55	0	249	251	2	37	11	22	65
1940	22	85	0	316	150	1	10	1	54	161
1945	2	7	1	188	10	4	2	1	26	16
1950	5	3	0	37*	5	11	2	1	16	32
1955	5	0	3	31	2	0	0	0	10	34
1956	10	0	1	8	0	1	0	0	6	27
1957	0	0	0	12	2	2	0	0	1	63
1958	1	0	1	13	0	0	0	0	5	13
1959	3	0	3	12	1	0	0	0	7	40
1960	0	0	2	10	0	1	0	0	0	8
1961	0	0	0	13	2	3	0	0	0	124
1962	2	0	1	16	0	0	0	0	3	16
1963	1	0	0	5	0	1	0	0	0	20
1964	1	0	0	12	0	1	0	0	1	5
1965	2	0	0	7	2	0	0	0	0	4
1966	2	0	0	19	1	0	0	0	1	106
Average Annual Deaths 1956-65	2.0	0	0.8	10.8	0.7	0.9	0	0	2.3	32

\* From 1950 onwards, deaths of those under 2 years of age only.

Notifications of certain communicable diseases from 1900

TABLE 10

Year	Cerebro-spinal fever	Diphtheria	Dysentery	Food poisoning	Gastro-enteritis	Infective hepatitis	Measles	Polio-myelitis	Puer-peral pyrexia*	Scarlet fever	Ty-phoid fever	Whooping cough
1900	—	407	—	—	—	—	—	—	44	658	1,777	—
1905	—	234	—	—	—	—	—	—	19	650	631	—
1910	—	238	—	—	—	—	—	—	16	734	95	—
1915	65	179	—	—	—	—	—	1	6	1,994	49	—
1920	8	300	—	—	—	—	—	1	48	1,939	210	—
1925	5	423	—	—	—	—	—	0	5	1,657	143	—
1930	24	118	—	—	—	—	—	9	20	1,132	32	—
1935	19	1,201	—	—	—	—	6,203	22	31	3,394	117	337
1940	166	1,165	—	—	—	—	5,062	2	9	1,266	17	701
1945	39	213	—	—	—	—	1,702	20	1	768	14	603
1950	22	45	—	—	377	—	4,209	109	4	1,668	5	1,078
1955	26	0	35	55	689	28	4,328	1	46	791	23	1,460
1956	20	0	401	29	412	65	1,797	9	37	540	8	790
1957	14	0	198	31	410	166	4,109	141	50	492	4	119
1958	9	0	269	18	430	112	280	11	29	384	2	1,132
1959	14	0	310	24	450	179	4,731	11	18	506	10	721
1960	2	0	278	27	455	296	487	3	36	519	0	88
1961	12	0	232	58	420	132	3,976	13	23	306	0	74
1962	13	0	326	40	401	71	1,535	5	17	194	0	635
1963	13	0	199	35	324	155	2,989	0	29	193	0	95
1964	7	0	183	42	411	265	1,904	0	16	402	0	223
1965	18	0	378	10	343	224	1,678	3	11	374	2	321
1966	13	0	300	10	475	71	1,422	1	3	186	0	221
Average Annual Notification 1956-65	12	0	265	30	406	168	2,349	20	27	391	3	420

\* Figures up to 1951 for Puerperal fever only

NOTES:—

1. Measles—notifiable only as the first case occurring in a household within a period of 2 months.
2. Whooping cough—notifiable only as the first case occurring in a household within a period of 3 months.



## COMMUNICABLE DISEASES

The year 1966 started with epidemics of influenza: there were three waves of infection due, according to the virologists, to influenza virus types B, A and C, in that order. The second wave, due to type A, was the most extensive and severe: school children were most involved, the attendance at some primary schools dropping below 50%. There were 106 deaths certified as due to influenza, all in the older age groups; in fact, 70% of such deaths were persons over 75 years of age.

None of the notifiable diseases reached epidemic proportions, in spite of the fact that measles and whooping cough epidemics were overdue. However, infantile gastro-enteritis remained a problem throughout the year, with a slight increase in notifications and deaths over recent years. Bacillary dysentery, mainly confined to young children, retained its mild character, but outbreaks in nursery and primary schools result in considerable absenteeism. Food poisoning cases were infrequent and sporadic. Ten notifications were received but, on bacteriological investigation, only six gave positive results. The organism isolated from all cases was *Salmonella typhimurium*. No evidence was found which would incriminate any particular foodstuff or other source of infection.

One case of poliomyelitis was notified. This was a young woman, employed as a cinema usherette, who complained of backache and had a flaccid paralysis of both legs. No virus was isolated from the patient and there was no rise in blood antibody titres. She made a complete recovery. All residents in the street where she lived were offered and accepted oral polio vaccine. The girl's parents were quite cynical about this procedure as they claimed that the girl had previous attacks of a similar illness due, they said, to the weight of the serving tray, stacked with ice-cream and soft drinks, which usherettes have to load from a refrigerator and carry out among the cinema patrons. One could well believe that a hospital consultant might not be aware of this syndrome!

There was the usual complete absence of diphtheria and typhoid fevers.

*Tuberculosis:* A rise in the annual number of new cases in 1965 to 221 has been followed by a substantial fall in 1966 to 176 cases – a reduction of 20%, to which all age groups have contributed. In 1959, with the dissolution of the Northern Ireland Tuberculosis Authority, nurses with extensive experience in visiting tuberculosis cases were transferred to the Health Authority and eventually integrated into general health visiting duties. Tuberculosis control duties were then allocated to district health visitors along with their other duties. It became increasingly obvious that this administrative arrangement was not working well. Health Visitors with no experience of tuberculosis control work found it difficult to pick up the procedure when they had only two or three cases per year and the long experience and skills of the former tuberculosis health visitors were not being fully utilised. A reversion to the former arrangement appeared to be to everyone's satisfaction.

### Immunisation and Vaccination

*Smallpox Vaccination:* this is advised for infants when they reach their first birthday. In 1966 only 488 such vaccinations were performed, representing 6% of the annual birth rate. It is obvious that neither doctors nor parents are satisfied that the not inconsiderable upsets of vaccination should be incurred in the absence of smallpox. In contrast, 15,772 international certificates of vaccination were presented to the Health Department for authentication during the year. The great majority of these were on behalf of elderly persons intending to visit their relatives in North America. This amount of vaccination among the elderly does not pass off without upset to some patients, even, on the rare occasion, resulting in a fatality.

Immunisation against diphtheria, whooping cough, tetanus and poliomyelitis is available at child health clinics and at most general practitioner surgeries.

### Parking Meter Scheme — Exemptions

With the introduction of a parking meter scheme in Belfast, the Health Department was asked to assume responsibility for the medical examination of persons suffering from a severe physical handicap who claimed exemption from charges and time limits for parking. To the end of the year, 83 such applications had been made. Classified according to type of physical handicap, the three main groups were poliomyelitis (20 cases); amputation, of, or severe injury to, one leg (16 cases) and arthritis (12 cases).

It was decided that the qualifying medical condition should be a considerable restriction of mobility, demonstrated to the medical examiner's satisfaction. Many border-line cases entailed repeated observations at work and in the street. Generally, reference to the applicant's general practitioner or consultant produced an emphatic support of the application, even in cases where it

was obvious that the disability in no way interfered with the applicant's mobility. Some applicants claimed a history of chest pain, breathlessness and a diagnosis of cardiac ischaemia. Most of these were business and professional men (including a doctor) whose way of life appeared to consist of travelling everywhere by motor car and, between journeys, short bursts of physical activity ending in breathlessness. Explanations of how they might get around in reasonable comfort and yet provide themselves with sufficient exercise to improve their cardiac efficiency fell on deaf ears, as such a regime entailed some walking. In contrast, some poliomyelitis cases were seen with extensive paralysis of muscles of the trunk and two or more limbs: their cheerful outlook and will to overcome all disabilities, even without artificial help, was most inspiring.

Amputation of leg(s) .. .. .	10
Myocardial ischaemia .. .. .	7
Spondylitis deformans .. .. .	2
Injury to one leg .. .. .	6
Severe asthma and bronchitis .. .. .	4
Poliomyelitis (legs and trunk) .. .. .	20
Muscular dystrophy .. .. .	1
D.N.A. dystrophy .. .. .	2
Growth on leg .. .. .	1
Congenital dislocation of hips .. .. .	2
Arthritis .. .. .	12
Multiple limb injuries .. .. .	4
Congenital bone disease .. .. .	2
Multiple sclerosis .. .. .	2
T.B. spine or hip .. .. .	2
Neurasthenia .. .. .	1
Abdominal surgery .. .. .	1
Brain surgery .. .. .	1
Intermittent claudication .. .. .	1
<hr/>	
Total ..	81

(Note: the exemption of disabled persons from charges and time limits at parking meters is restricted to those whose daily regular place of work is within the parking meter zone).

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*Deputy Medical Officer of Health.*

# REPORT OF THE CHIEF PUBLIC HEALTH INSPECTOR FOR 1966

## Staff Matters and Pupil Training

Three final year students passed their examinations and were appointed as Public Health Inspectors. Three new pupils were appointed to maintain the strength of pupils under training at 15. A large number of Inspectors are due to retire on reaching the age limit within the next five years, so that training at the present strength must continue for some years to come. Vacancies occur each year and are advertised in the local Press and they present excellent career prospects for young men keenly interested in public health. It is a worthwhile profession, interesting and varied, making an important contribution to the well-being of the community.

In addition to the appointment of the three newly qualified Inspectors there were three other appointments made of Inspectors – 2 from London and 1 ex-Kenya. Unfortunately this increase in strength was off-set by the retirement on age of 3 Inspectors and the resignation on appointment elsewhere of another 3. This left the strength of the Inspectorate as it was with 15 vacancies. There is no doubt that this Branch of the Department is seriously under-staffed and, with new legislation dealing with Clean Air, Offices and Shops and Housing adding to their duties, the Inspectors have their hands full in dealing with the increasing calls made upon them.

## Slum Clearance and Redevelopment

Due to a variety of reasons the Redevelopment programme has not gained the momentum hoped for: nevertheless demolition and re-building is taking place in 3 of the Redevelopment Areas which had approximately 2,400 houses. It is hoped that in the incoming year the first occupants of the new dwelling units in the Redeveloped Areas will have moved in. Almost 1,000 unfit houses and pre-fabricated bungalows were closed and the majority of them demolished during the year. Mention is made elsewhere in the Report of the great problems associated with keeping this class of accommodation in habitable repair pending closure and demolition. In the Housing Section of this Report the typical housing conditions found in Redevelopment Areas are described and the experiences of the Housing Trust in dealing with one of these areas make interesting reading.

## Food Inspection

Statistical information and other details in this Section of the Report again illustrate the ever increasing flow of legislation which covers our daily food. Regulations on compositional standards, control of additives, preservatives, colouring matters, and further labelling requirements have been added to the already long list of regulations dealing with the food we eat. In emphasising this point, mention is made of an interesting recent comment on the application of Food Regulations to the humble fruit loaf. This may contain most of the following:—

Bleaching agent (flour);  
Antioxidants (fats);  
Colours, synthetic;  
Flavours, synthetic;  
Preservative (fruit);  
Emulsifiers;  
Stabilizers;  
Buffers, Nutrients, Sequestrants;  
Mineral Oil;  
Anti-caking and-staling agents;  
Pesticide residues;  
Insect contaminants;  
“Foreign bodies.”

Two typical examples of the varied work of this Section were investigations into possible health hazards associated with the use of a certain type of can opener, and “pink elephants” – a plastic envelope in the shape of an elephant, filled with water and then frozen as an alternative to ice in spirits. Appropriate action was taken in both instances. Complaints of foreign matter in food would appear to be on the increase and range from insects, dirt, moulds, etc., to metal objects, pieces of plastic, rubber and glass, illustrative of the mechanisation of the food industry.



## **Poultry Inspection**

At least thrice-weekly inspections are made of the 4 premises wherein poultry are killed for retail sale. Approximately 40,000 birds were inspected during the year and details of conditions and action taken are recorded elsewhere in this Report. With weekly inspection of the markets, routine inspections of poulterer's and butchers shops, allied to inspection in the poultry packing stations, quite a good control is exercised over the sale of poultry to the general public. 100% inspection of poultry is neither practicable nor feasible.

## **Meat Inspection**

As a follow-up to the procedure adopted in Abattoirs for dealing with carcasses affected with *Cysticercus Bovis*, the Food Inspectors visit cold storage depots to ensure that carcasses sent there for treatment are retained for the prescribed period.

## **Air Pollution**

The City's first Smoke Control Area will be made in 1967, to be followed within the next five years by several others. These areas are closely associated with the Redevelopment Areas which are also to be smoke control areas. A large number of individual owners are installing central heating using oil, gas, electricity or solid fuel, all of which help to clean up the atmosphere. In the industrial field very few hand-stoked boilers using solid fuel are left.

## **Offices and Shops**

The Office and Shop Premises Act (N.I.) 1966, which follows closely a similar Act in England, has been hailed as a major piece of social legislation dealing with the health, safety and welfare of employees in such premises and comes into force in 1967. Certain provisions of the Act which could require the carrying out of structural alterations will come into force on subsequent dates.

## **Examination of Plans**

181 plans were received from the City Surveyor's Department for examination as to compliance with public health legislation. New boiler installations, with legal requirements for new chimneys to be of sufficient height to ensure adequate dispersion of fumes and minimal ground level concentration of sulphur gases, lead to much discussion with Architects and Consultant Engineers. Agreement is reached when it is generally accepted that the efficient dissemination of flue gases is essential for the well-being of the community.

## **Acknowledgments**

The help and assistance given and the good liaison with our staff and the staff of other Corporation Departments including the City Surveyor's, City Architect's, and Estates Superintendent's and the staff of the Belfast Water Commissioners is gratefully acknowledged and much appreciated. Appreciation is also recorded for the help given in the compilation of this section of the Annual Health Report by the senior officers of the Atmospheric Pollution, Housing, Port Health, Factories and Shops, Food and Drugs and Pests Control Sections and the clerical staff of the Sanitary Branch.

## **SEWERAGE, SEWAGE DISPOSAL, LAND DRAINAGE AND RIVER WORKS**

The following information is supplied by the City Engineer and Surveyor and some of the works described will, when completed, eliminate causes of complaint to the Health Department. The development of the Bog Meadows, the culverting of the Farset River between Shankill Road and Lawnbrook Avenue, the piping of the Taughmonagh Stream, and the laying of a sewer to serve the Hampton Park-Annadale area are examples of such works.

The following is an extract from the Report on the work of the City Engineer and Surveyor's Department for 1966:—

The work under Contract No. 1 in connection with the development of the Bog Meadows is progressing and the new pitched channel for the Blackstaff River is two-thirds complete. Stream diversions in 42" and 60" dia. piping are 90% complete. The construction of new sewers is well advanced, the high level being 90% complete and the low level 80%. Work is proceeding on the 1½ mile long

7 ft. 6 in. internal diameter High Level Intercepting Sewer between Mervue Street and the intersection of Argyle Street and Ashmore Street. This sewer is being carried out entirely in tunnel and approximately  $\frac{3}{4}$  mile of the outer segmental rings of the tunnel has been constructed. The culverting of the Farset River between Shankill Road and Lawnbrook Avenue should be completed early in 1967.

The new pumping station at Glenmachan Street was completed and is now in operation. Work was completed on the piping of Taughmonagh Stream and also on the laying of the sewer to serve the Hampton Park-Annadale Avenue area. Plans have been completed for the relaying of the Springfield Road Sewer between West Circular Road and Springfield Park and it is expected that tenders will be invited early in 1967.

**REFUSE COLLECTION AND DISPOSAL**

The work of the Cleansing Section as far as refuse collection is concerned has again increased slightly over the past year, bringing total household collection to 5,000 tons per week and this, with 500 tons of street sweeping and 300 tons of trade refuse, was disposed of at Duncrue Street tipping ground. The Harbour and Holywood Road tips are now closed and the whole of the City's refuse is being tipped at Duncrue Street. In addition, Castlereagh and Holywood, who have lost their tipping grounds, are temporarily using Duncrue Street.

Two new 40 cubic yard, one 50 cubic yard and two 35 cubic yard capacity refuse collection vehicles have been ordered this year, together with two suction sweepers and four gully emptying machines and one combined cesspool and gully emptying machine. Two hundred free-standing litter boxes have now been erected. In the event of a severe snowstorm 21 snow ploughs are ready for immediate use, together with 12 bulk gritters. A register of contractors with plant for hire has been compiled and approximately fifty mechanical shovels and 160 tipping lorries could be called upon if required. The bulk bin service has again expanded rapidly and 219 of these bins are now on hire.

**WATER SUPPLIES**

The Belfast City and District Water Commissioners supply the City with water from a number of catchment areas and reservoirs under their control. The Health Department is kept informed of any new developments and works and are supplied with results of chemical analyses and bacteriological examinations. We, in turn, supply the Commissioners with results of bacteriological examinations of samples collected by our staff and submitted to the Central Public Health Laboratory.

**Water Samples collected by the Health Department staff from consumer's taps**

During the year the total number of samples thus taken was 296. Of this number 274 were reported as highly satisfactory, and the remaining 22 samples were unsatisfactory. The results of the unsatisfactory samples are as follows:—

**TABLE B1**

Coliform organisms (per 100 ml.)	Samples	Coliform Organisms of faecal origin (per 100 ml.)	Samples
1—3	20	1—3	6
4—10	1	4—10	1
Greater than 10	1	Greater than 10	—

7 samples contained both faecal and non-faecal coli.

**Water samples collected by the Health Department staff from consumers' taps in tenements**

In all, 299 samples were taken for bacteriological examination and of these 265 were reported as highly satisfactory. 34 were regarded as unsatisfactory because of the presence of coliform organisms. Although these samples were mostly of tank water, a high percentage was reported as satisfactory. Our officers advise the occupants of the tenements not to use such water for drinking or cooking purposes.



## **Samples of water from mineral water manufacturers**

135 samples of mains water were taken for bacteriological examination and of these 130 were returned as highly satisfactory. 5 were classified as unsatisfactory due to the presence of coliform organisms. 39 samples of private supplies in use for manufacturing purposes were taken and the Bacteriologist reported 32 of them as highly satisfactory. The remaining 7 were classified as unsatisfactory due to the presence of coliform organisms of faecal and non-faecal origin.

## **Domestic supplies for wells and springs**

Of 264 samples taken, only 63 were reported as satisfactory. The remaining 201 samples were shown to have coliform organisms of faecal and non-faecal origin. 138 of these samples had more than 10 organisms per 100 ml. of water.

## **SWIMMING BATHS**

### **Enclosed swimming baths**

Two new swimming ponds were opened during the year, one at Methodist College measuring 80 ft. by 25 ft. with a capacity of 37,500 gallons. The water is treated by filtration and continuous chlorination and the pumps are capable of complete circulation of the water every four hours. The other pond opened is at Fleming Fulton Special School. The pond is approximately 200 sq. ft. in size with a capacity of 2,000 gallons. Treatment is by filtration and continuous chlorination with complete circulation of the water every three hours. There are now 8 enclosed swimming baths in the City, the others being 4 owned by the Corporation, 1 at Royal Belfast Academical Institution and 1 at the Malone Training School. Peter's Hill baths was demolished during the year as part of Redevelopment Area "A".

624 inspections were carried out during the year and 990 tests made of the water for pH and chlorine residual. 69 tests revealed that the water was not in compliance with agreed standards and the results were reported to the appropriate authorities. Of 258 samples taken for bacteriological examination, 6 were returned as unsatisfactory. Those having control of the ponds were advised of the adverse reports.

### **Open-air swimming ponds**

There are 4 such pools in the City — 2 owned by the Corporation and 2 by public schools. 85 inspections were made and 130 tests carried out for pH and chlorine residual. 40 samples of the water were collected for bacteriological examination and all were reported as satisfactory.

## **HOUSING ACTS (NORTHERN IRELAND) 1890-1964**

### **Slum Clearance and Redevelopment**

A vesting order was made during the previous year for Area "F1", bounded by Durham Street, Divis Street, Albert Street and Cullingtree Road. Three Public Health Inspectors from the Housing Division completed a detailed inspection of all dwelling houses in this area to ascertain their fitness for the purposes of making a Declaration of Unfitness Order. Detailed inspections of the individual dwellings within the area indicated a general state of disrepair, dampness and varying degrees of instability. Some of the houses have a fairly good frontal appearance, brought about by the occupiers having the front external walls cement rendered, or the brickwork joints pointed, or, in some cases, the entire front external walls pointed and new windows installed, but in a number of cases the cement rendering is now worn and cracked and tends to trap the rain water. In many cases occupiers have carried out extensive repairs and, in an attempt to keep out penetrating damp, have had internal walls cement plastered, which in turn has resulted in excessive condensation. Many of the main roofs require to be reslated and there was no evidence of damp proof courses. With the ageing of the dwellings (most were built between 1858 and 1883), brickwork was perished or crumbling, walls and chimney stacks in many instances were off plumb and bulged with joints open and in many cases bricks and chimney pots were loose.

Light and ventilation was often found to be poor and obstructed and few dwellings had adequate and proper accommodation for the storage and preparation of food. A number of occupiers have improvised structures in the yard space as sculleries which in most cases obstruct the light in the

living room, are poorly constructed and are in contravention of the building bye-laws. A large number of these houses lack proper scullery accommodation and some have no sink, with the water tap in the open yard or behind the front entrance door; others have old, worn and unhygienic sinks. In some of the older houses food is stored, prepared and cooked in the living room which is used as a dining room. Washing facilities in many of the houses are non-existent and a laid on hot-water supply is a rarity. Very few of the houses in this area have internal W.C's or baths, the majority of W.C's being situated in a small (usually defective) brick apartment in the small yard at the rear. A large number of the main roofs have slipped slates and many other slates are being held in position by lead ties, indicating that the slating laths are split and unable to hold the slating nails.

Another unsatisfactory feature is that practically all the streets have no rear passages and consequently household refuse has to be carried through the living rooms by the Cleansing Department. This can cause offensive smells in the house and the possibility of soiling the floors, walls and furniture. Lack of proper fuel storage accommodation results in coal being stored in many cases in a small apartment under the stairs.

On the 13th June, 1966, the Northern Ireland Housing Trust took over the control of Area F1 and their Housing Manager made a survey of the area and found the most common complaints were generally directed against the condition of the houses themselves and lack of space and proper amenities. The Housing Manager also found that, on the whole, the majority of older people preferred to stay in the area while the younger married people were anxious to get out. This latter group, when moved, have enabled the Trust to use the vacant houses for those who wish to remain in the area as they expect to use these houses until new accommodation has been built. Some families wish to remain, saying their children were settled in the area, or that relatives lived nearby, but many expressed a fear of high rents, travelling expenses, or a complete horror of the unknown. To many old people, any district other than their own immediate neighbourhood is "unknown." Only vacant houses in good condition are being used for transferring people in the immediate demolition area, as otherwise the cost of making a poor house habitable would be excessive. It was also found that, whilst there was a high proportion of houses under-occupied by old people living alone, there existed much overcrowding and multiple occupation in the smallest of houses. The Housing Trust have had much trouble with vandalism and its cost has had to be added to their repair account. Such things occur as windows being removed from boarded-up houses on a Sunday afternoon; immediately a house becomes un-occupied lead piping is removed together with fireplaces and all fittings of value. New "playing fields" are the levelled sites of demolished houses where children find enough stones to smash windows and street lamps. As all houses are vacated, the drains are sealed up to prevent offensive smells or rat infestation.

The Housing Manager keeps in constant contact with the people in the area by way of a fortnightly rent collection and by having an office situated on the site where advice can be had at any time. This contact is obviously of prime importance. Rents (including rates) collected up to 31st December, 1966, amounted to £14,790. Repairs have amounted to £2,621. Already some 61 tenants have left the area since the middle of June, 1966:—

Deceased or left the area voluntarily .. .. .	18
Families housed at Andersonstown .. .. .	31
Families housed at Suffolk .. .. .	5
Families housed at other Trust Estates .. .. .	7
	<hr/>
	61
	<hr/>

The Housing Division started a detailed inspection of areas F3 and F4 on 13th June, 1966. This is an area bounded by Cullintree Road, Albert Street, Falls Road and Grosvenor Road and contains approximately 2,440 houses. It is expected that the area will be vested in 1967. A Public Inquiry for "Fitness" of Area F1 was held on 13th October, 1966, at which the Public Health Inspectors of the Housing Division gave evidence as to the unfitness of these houses. The result of this inquiry had not been declared by the end of the year.

Apart from redevelopment schemes, 12 individual unfit houses were represented: Closing Orders were made on 11 of these and a Demolition Order on one. The policy of rehousing the occupants of prefabricated bungalows was continued and extended to cover other sites in the City. 197 of these bungalows were closed and demolition and clearance of the sites are to follow.



### New Houses Completed

(1)	Private	..	..	..	..	..	363
(2)	Corporation:—						
	Number of Houses	..	..	..	..	..	68
	Number of Flats or Maisonettes			..	..	..	438
	Number of Old Peoples' Dwellings			..	..	..	22
						Total	891

### Conversion/Improvement Schemes

The City Surveyor referred to the Department 505 applications for grants under these schemes for report by the Public Health Inspectors.

### Discretionary Points System for Allocation of Houses on Medical Grounds

53 applications supported by medical certificates were received from the Estates Superintendent. All were reported upon and assessed by the Medical Officer of Health.

### Rent and Mortgage Interest (Restrictions) Acts (N.I.) 1920-1961

The tables below show the use made by tenants and owners of the provision of these Acts. Where statutory nuisances are discovered at the time of inspections, notices under the Public Health Acts are served requiring their abatement.

(a) During 1966:—

Certificates and reports outstanding at 1/1/66	..	..	..	2
Applications for certificates and reports	..	..	..	190
Certificates issued to tenants	..	..	..	130
Reports issued to landlords	..	..	..	22
Certificates refused	..	..	..	2
Reports refused..	..	..	..	30
Applications and reports cancelled..	..	..	..	4
Certificates and reports outstanding at 31/12/66	..	..	..	4

(b) Totals from 1st September, 1951, until 31st December, 1966:—

Applications for certificates and reports	..	..	..	43,581
Certificates issued to tenants	..	..	..	30,096
Reports issued to landlords	..	..	..	7,478
Certificates refused	..	..	..	523
Reports refused..	..	..	..	5,136
Applications and reports cancelled..	..	..	..	344

### PUBLIC HEALTH NUISANCES

A major part of the Public Health Inspector's duties is the discovery and abatement of statutory nuisances. The general public make such extensive use of the Department's services in this respect that there is little time left for systematic inspection of districts to discover the existence of nuisances. There are many old and sub-standard houses in the City which have long passed their normal span of life and most of these are no longer wind and water tight. A spell of stormy rainy weather is followed by hundreds of complaints to the Department. These are the "problem" houses for the Public Health Inspectors. Roofs have been repaired so often that further "darning" repairs are almost useless. Nothing short of stripping and re-slating these roofs will give any lasting protection against rain and storms. This would inevitably entail the complete renewal of roof timbers and the cost of the whole operation for a small kitchen house would be in the region of £100. Having regard to the age of the houses, lack

of amenities and very low standard of accommodation, such major repairs are not considered practical on structural and economic grounds. So it is "darn and patch" and "patch and darn" over and over again until the Redevelopment Plan for the City one day reaches the area and writes finis to these houses. Hasten the day! The keeping of these houses (many of which are let at low rentals) in a habitable state imposes financial burdens on the owners and many of them request the Department to make Closing Orders. However sympathetic the Department and the Corporation may be, it is simply not possible to accede to these requests. The Public Health Inspectors appreciate the owners' problems and only ask for urgent and necessary repairs in such houses. This in turn is not always appreciated by the occupants (or by some owners).

Nuisances complained and discovered

TABLE B 2

Nuisance	Divisions				Totals
	North	South	East	West	
Drains, traps, etc., foul or defective	910	822	882	911	3,525
Tiling, paving or flooring defective	432	467	607	515	2,021
Sinks defective, or want of; wastepipes foul or defective	94	93	76	62	325
Water closets foul or defective; no water closet accommodation; soil or ventilation pipes defective or want of	776	676	816	992	3,260
Dustbins defective or want of	66	75	51	91	283
Roofs defective	1,789	1,998	1,983	2,934	8,704
Spouting defective or want of	1,007	1,158	1,304	1,659	5,128
Damp state	2,854	2,886	2,953	4,336	13,029
Plaster on walls and ceilings defective	587	732	600	868	2,787
Domestic water supply: want of, or unsuitable	25	9	17	24	75
Lighting or ventilation insufficient or want of	58	64	114	45	281
Schools overcrowded	—	—	—	—	—
Dwelling houses overcrowded	18	9	7	13	47
Accumulation of manure and offensive matter; offensive smells; premises or passages dirty	433	380	423	434	1,670
Fowl or animals kept so as to be a nuisance	9	5	2	2	18
Schools dirty or defective	1	1	—	—	2
Miscellaneous	1,524	1,615	1,745	1,971	6,855
Totals	10,583	10,990	11,580	14,857	48,010

Public Health Nuisances abated in dwelling houses, etc.

TABLE B 3

Nuisances abated	Divisions				Totals
	North	South	East	West	
House drains cleansed	713	575	622	560	2,470
House drains repaired and relaid	139	75	114	200	528
Houses had tiling, paving or flooring repaired	386	467	622	469	1,944
Waterclosets cleansed or repaired	659	550	781	855	2,845
Dustbins provided	46	59	43	65	213
Houses provided with new sinks	—	—	—	—	—
Roofs repaired	1,579	1,662	2,021	2,543	7,805
Spouting repaired	914	1,010	1,356	1,548	4,828
Passages cleansed	27	37	34	20	118
Houses cleansed	17	19	14	27	77
Minor repairs	1,370	1,564	1,857	1,934	6,725
Miscellaneous nuisances abated	31	23	46	57	157
Totals	5,881	6,041	7,510	8,278	27,710
Length in feet of drain pipes laid	332	4	85	453	874
Gully and disconnecting traps provided	11	1	8	14	34

### Summary for 1966 in connection with defects in dwelling houses

Nuisances complained of and discovered	..	..	..	48,010
Inspections	..	..	..	89,319
Statutory notices issued	..	..	..	17,659
Sanitary improvements carried out	..	..	..	27,710
Summonses for non-compliance with notices	..	..	..	1,143
Magistrates Abatement Orders obtained	..	..	..	252
Summonses for disobedience of Magistrates' Orders	..	..	..	21
Fines imposed	..	..	..	£483.15.0
Costs awarded	..	..	..	£96.14.0

### Memoranda to other Departments, etc., in connection with complaints

Estates Department	..	..	..	..	891
City Surveyor's Department	..	..	..	..	1,682
Water Commissioners	..	..	..	..	1,579

### Bye-Laws relating to keeping water closets supplied with sufficient water for flushing

Inspections during the year	..	..	..	..	1,340
Notices issued	..	..	..	..	616
Summonses	..	..	..	..	52
Fines imposed	..	..	..	..	£99.10.0
Costs awarded	..	..	..	..	£18.14.0
Continuing offences	..	..	..	..	2
Fines in respect of continuing offences	..	..	..	..	£18. 0.0
Costs in respect of continuing offences	..	..	..	..	£0.14.0

### Belfast Corporation Act 1930, Section 44 (Provision of dust-bins)

Notices requiring provision of dust-bins	..	..	..	100
Summonses for non-compliance with Notices	..	..	..	2
Dust-bins provided following notices	..	..	..	213

### Buildings used for Public Entertainment

Inspections are made during evening performances to check the efficiency of the heating and ventilating systems and to ensure that conditions are satisfactory. Instruments used in the tests are a Hygrometer/Thermometer and a Kata Thermometer.

#### Cinemas and Theatres:—

Number in the City	..	..	..	..	28
Inspections	..	..	..	..	122
Tests carried out	..	..	..	..	124
Kata thermometer readings	..	..	..	..	620

During the year one new theatre opened and four cinemas were closed.

In one cinema the test results recorded conditions below the standard necessary to protect public health and for the comfort of the patrons (the temperature being too high and the rate of air flow too slow). The cinema management were notified and the necessary action was taken to improve the conditions. In one cinema major repairs, redecoration and alterations to seating accommodation were carried out, making conditions more satisfactory for the health and comfort of patrons.



### *Dance Halls:—*

Premises licensed for public dancing .. .. .	50
Inspections .. .. .	35
Tests carried out .. .. .	38
Kata thermometer readings .. .. .	190

### **Drain Testing**

Complaints of rats, offensive smells, liquid seepages, etc., generally require drains to be tested to ascertain the cause of complaint. The number of tests carried out are set out below:—

Tests on complaint of rats .. .. .	607
Tests on other complaints .. .. .	318
Defects found by colour tests .. .. .	29
Defects found by smoke tests .. .. .	354
Defects found by water tests .. .. .	1
Length in feet of drain pipes laid in relaying drains .. .. .	874
Other sanitary fittings provided (gully traps, etc.) .. .. .	34

### **School Buildings**

School Buildings in the City are inspected at frequent intervals with regard to cleanliness and adequacy of accommodation, heating and ventilation and suitability of water supplies, etc. The Food Inspectors visit the school meals kitchens at regular intervals to check on hygiene standards and assist the School Meals Organizer in checking the quality and suitability of food supplied under contract to the schools.

Inspections of schools, etc. .. .. .	208
Complaints received from the School Health Division .. .. .	6
Intimation notices concerning defects sent to	
(a) Director of Education .. .. .	6
(b) Managers of voluntary schools .. .. .	7
Sanitary improvements carried out .. .. .	3
Samples of contract milk taken .. .. .	114

### **Other premises and locations**

The undernoted premises are routinely inspected as to the existence of public health nuisances and appropriate action is taken where necessary.

#### *Stabling yards—38 on Register at 31/12/65.*

Inspections .. .. .	105
Anti-fly treatments .. .. .	112

#### *Burial grounds*

Inspections .. .. .	37
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#### *Public sanitary conveniences*

Number in City .. .. .	152
Inspections .. .. .	627

#### *Offensive trades (hide merchants, etc.)*

Number in City .. .. .	10
Inspections .. .. .	38

#### *Hairdressers*

Registered at 1/1/66 .. .. .	528
Registered during the year .. .. .	39
Deleted during the year .. .. .	28
Registered at 31/12/66 .. .. .	539
Inspections .. .. .	1,171

All hairdressing premises are subjected to inspection before registration and thereafter at frequent intervals to ensure compliance with the relevant Bye-Laws. During the year a number of complaints were received of hair-dressing being carried on in private houses; where they were confirmed they were reported to the City Surveyor for appropriate action under the Planning Acts.

<i>Common lodging houses</i>							
Inspections	..	..	..	..	..	..	9
<i>Tipping grounds</i>							
Inspections	..	..	..	..	..	..	36
<i>Rivers and streams</i>							
Inspections	..	..	..	..	..	..	424
Samples of water collected	..	..	..	..	..	..	137

The samples of water were taken from the rivers and streams for bacteriological examination to check on the extent of pollution. 2 samples were satisfactory and 135 samples were reported to contain coliform organisms of faecal origin.

### AIR POLLUTION

Under the Clean Air Act (N.I.) 1964 (Section 10) a local authority must be satisfied that the height of a chimney, as shown on plans submitted to them for approval, is sufficient to prevent so far as practicable all smoke, grit, dust or gases from becoming a nuisance or prejudicial to health. During the year 42 plans for buildings other than shops or dwelling houses with some form of fuel-burning plant were considered. Consideration is given to the size and type of plant, the distance from and type of adjoining buildings and the levels of neighbouring ground. The final height is calculated from the "Memorandum on Chimney Heights." In a number of cases the chimney height as suggested by the architect or consultant was insufficient and the person submitting the plans was requested to make the necessary modifications before approval was given. The method of calculating chimney height is based upon the sulphur dioxide content of the flue gases emitted and by making proper use of the Memorandum and the other provisions of the Clean Air Act. Chimneys thus provided should cause no trouble by emission of noxious gases, smoke, grit and dust.

As atmospheric pollution resulting from the combustion of fuel has a seriously harmful effect on both health and materials, the current approach is to ensure that polluting gases are discharged at heights adequate to minimise their effects at ground level. This policy has financial implications for industrialists and others whose chimneys are now required to be higher for public health reasons and the co-operation of architects, consultants and town planners is of fundamental importance. Once this is gained, however, any conflict of interest can be turned to mutual advantage, thus bringing benefit to the community. There is scope for continual research to discover practical methods of removing sulphur from fuels; until this is achieved, local authorities, industrialists and the general public must understand the necessity for accepting current practice. There is good reason too for the extension of control of chimney heights beyond the scope of present legislation, which stops short of what is essential in present day conditions.

One smoke problem which has been very prominent in recent years (and which does not involve chimneys) is the burning of disused car bodies by scrap merchants in yards and on vacant ground. Statutory notices under the Public Health Acts have been served on several persons who were carrying on this practice, but the problem is that, in most cases, the fire is of short duration and there is little evidence by the time an inspector arrives. All car dismantlers and scrap merchants have been warned regarding the practice of burning rubber tyres, car upholstery and insulated cables (for the recovery of scrap metal). Although some headway has been made with the larger established dealers, there is the problem of the individual who sets up in business on a piece of land for which no one accepts responsibility and proceeds not only to pollute the air but to despoil the area by the litter thrown around. The only answer would appear to be for a large dealer or even a number of dealers to unite and erect a suitable incinerator where disposal could be achieved smokelessly and where the cleaned scrap metal could be pressed into sizes suitable for shipping.

During the year it was decided to make a start on the big problem of domestic pollution. It was felt that the West side of the city offered the best possibility for success in this venture, mainly because the prevailing winds are westerly and any area selected would be truly smokeless and not so subject to pollution from adjoining areas. The area selected for No. 1 Smoke Control Area was 285 acres bounded by the City Boundary — Ballygomartin Road — West Circular Road and Springfield Road.



This contains 1,721 premises, a large proportion of which are Belfast Corporation property. On preliminary survey it was found that 77% of the tenants would prefer solid fuel open fires, 7% room heaters and 16% electricity. Most of the people in the area who were interviewed expressed a desire for smoke control and those who had already changed to some form of smokeless space heating were full of praise for the benefits they had derived from the changeover. It is hoped that a detailed survey of the area may begin as soon as Ministerial approval is obtained and that the order may become operative in October, 1968. A 5-year plan to introduce smoke control areas adjoining No. 1 area, covering in all 1,503 acres and 11,880 premises, is envisaged. It is hoped that this programme will be completed by 1972, when these areas would join up with redevelopment areas and extend smoke control much closer to the city centre.

While much research has been and is being done on what may be called the science of air pollution — its composition, measurement, behaviour in the atmosphere and its physical and other effects — it is surprising that, in what is essentially a social problem, there should be so little investigation into the reactions and opinions of people who are affected by it and whose well-being is the main objective of the drive to clean up the air. Much education and publicity will be necessary before the introduction of smoke control, so that a desire for smoke-free air is created, as it is of little use installing appliances to burn smokeless fuel, only to find that householders are unwilling to co-operate in making a success of a scheme in which a considerable amount of government, local authority and private money has to be expended. Opportunities for advancing the cause have been taken as they have presented themselves and many enquiries are being answered from tenants and householders from all parts of the city as to when smoke control is to be introduced within their area. The creation of a favourable public opinion is especially necessary in our No. 1 Area, as upon it hangs much of the success of future smoke control areas throughout the city and the abolition of the open fire burning bituminous coal.

The type of space heating being installed in new houses is causing some concern, as new dwellings, (i.e. dwelling started after 9th June, 1964), would not be eligible for adaptation grant if subsequently brought within a smoke control area. Since that date, when plans for the erection of a new dwelling were approved by the Belfast Corporation, a circular was sent to the builder or developer stating that appliances as approved by the Domestic Solid Fuel Appliances Council should be installed. Appliances in new dwellings should not therefore require conversion except for some reason such as a change in the fuel position, in which circumstances (if the Ministry of Finance approved), financial assistance could be extended to any class of new dwelling. It has, however, been found in some cases that the information has been ignored and most of these new dwellings are fitted with appliances not capable of burning solid smokeless fuels. When the attention of some builders was drawn to this fact they expressed little concern and were happy to leave the matter when it arose to the householder. When the householders (particularly owner-occupiers) find that they are not eligible for a grant under a Smoke Control Order, the inspectors carrying out a house to house survey will be involved in considerable explanations.

Measurements of air pollution continue to be made by the taking of daily recordings of smoke and sulphur dioxide and monthly recordings of sulphur trioxide and solid deposited material. Daily recordings still continue to show the inner zone stations at College Street, Templemore Avenue and Mountcollyer Street to have the heaviest degree of both smoke and sulphur dioxide pollution. Templemore Avenue (in a densely populated and industrialised area of the east of the city) has the doubtful distinction of having the heaviest pollution of smoke, while College Street in the city centre has the heaviest mean value for sulphur dioxide. These heavy concentrations occur during the winter months of November, December and January. North Road and Balmoral Avenue have the record for the lowest smoke and sulphur dioxide readings and, in general, pollution is at its lowest in the months of June and July. While the number of deposit gauges for recording solid material on a monthly basis has been reduced from 10 to 5 in recent years, the site at Ormeau Avenue still records the heaviest pollution, with October the worst month at 45 tons per square mile, this being some 4½ tons higher than the highest recording made in 1965. This form of instrument is, however, not a true reflection of the pollution of the area as a whole and is more likely to record one particularly source or chimney in close proximity.

*Work done in connection with Air Pollution during 1966*

Timed observations	..	..	..	..	..	1,412
Minutes of dark and black smoke emitted	..	..	..	..	..	1,348
Average minutes of dark and black smoke emitted per observation						0.9
Verbal notices given	..	..	..	..	..	62
Statutory notices served	..	..	..	..	..	13
Plant inspections and advisory visits	..	..	..	..	..	2,214
Complaints investigated	..	..	..	..	..	74
Number of factory chimneys	..	..	..	..	..	400

# Location of Atmospheric Pollution Recording Sites

## (a) Health Department

- |                        |                         |
|------------------------|-------------------------|
| 1. Ormeau Avenue       | 10. North Road          |
| 2. York Road           | 11. Balmoral Avenue     |
| 3. Station Street      | 12. Falls Road          |
| 4. Forfar Street No. 1 | 13. Mountcollyer Street |
| 5. Forfar Street No. 2 | 14. Lowwood Park        |
| 6. Northern Road       | 15. Queen's Bridge      |
| 7. Grove               | 16. Dufferin Road       |
| 8. College Street      | 17. Forfar Street       |
| 9. Templemore Avenue   |                         |

## (b) Queen's University, Belfast

18. Royal Victoria Hospital

## (c) Belfast Corporation Electricity Department

- |                          |                                  |
|--------------------------|----------------------------------|
| 19. Sydenham Airport     | 24. Madrid Street                |
| 20. Duncrue Street       | 25. East Bridge Street           |
| 21. Great Patrick Street | 26. Victoria Works, Queen's Road |
| 22. Skegoneill Street    | 27. Thompson Dock, Queen's Road  |
| 23. Park Avenue          |                                  |

Solid matter deposited (tons per square mile) at collecting stations during 1966

TABLE B 4

Month	Station					Totals	Monthly Averages
	1	2	3	4	5		
January	32.97	22.71	24.68	20.51	21.37	122.24	24.45
February	28.61	25.11	21.75	23.23	24.23	122.93	24.59
March	21.32	31.88	28.73	22.05	39.53	143.51	28.70
April	26.82	23.20	20.44	18.62	22.12	111.20	22.24
May	23.51	26.44	25.53	18.69	28.39	122.56	24.51
June	27.94	25.44	20.53	22.82	29.97	126.70	25.34
July	15.00	14.11	15.87	14.33	14.30	73.61	13.92
August	21.38	18.85	17.75	23.19	33.42	114.59	22.92
September	*	16.91	14.93	16.51	17.11	65.46	16.11
October	44.96	29.48	35.04	21.91	15.57	146.96	29.39
November	41.85	37.38	35.24	35.84	50.10	200.41	40.08
December	32.33	29.11	37.69	37.52	80.78	217.43	43.49
Totals	316.69	300.62	298.18	275.22	376.89		
Averages	28.79	25.05	24.85	22.93	31.41		

\* Bottle damaged: no recording.

Sulphur determination by lead-peroxide method (SO<sub>3</sub> per 100 sq. centimeters)

*Stations maintained by Health Department*

TABLE B 5

Month	Station				Totals	Monthly Averages
	4	5	6	7		
January	2.85	2.27	2.70	3.37	11.19	2.80
February	2.62	2.04	3.50	5.50	13.66	3.41
March	2.15	1.16	1.24	0.87	5.42	1.35
April	2.43	2.40	2.95	2.95	10.73	2.68
May	1.30	0.80	0.03	1.07	3.20	0.80
June	1.10	0.54	3.90	1.30	6.84	1.71
July	0.63	0.22	0.80	0.20	1.85	0.46
August	1.50	0.60	1.50	0.80	4.40	1.10
September	1.30	0.11	1.40	0.70	3.51	0.88
October	2.20	1.30	2.60	1.90	8.00	2.00
November	2.40	1.80	1.70	2.20	8.10	2.02
December	1.50	2.20	2.30	2.30	8.30	2.07
Totals	21.98	15.44	24.62	23.16		
Averages	1.83	1.29	2.05	1.93		

*Stations maintained by Belfast Corporation Electricity Department*

TABLE B 6

Month	Station									Totals	Monthly averages
	19	20	21	22	23	24	25	26	27		
January	2.88	5.07	3.40	4.28	1.65	2.40	—	1.66	4.20	25.54	3.19
February	5.39	4.67	2.03	3.53	1.42	2.01	1.31	1.85	4.93	27.14	3.02
March	6.43	1.44	1.62	2.36	1.52	2.39	1.48	1.63	4.07	22.94	2.55
April	2.77	2.96	1.52	2.32	1.06	1.53	0.81	1.41	3.90	18.28	2.03
May	2.19	1.60	1.09	1.00	1.00	1.33	0.94	0.82	2.21	12.18	1.35
June	1.37	0.69	0.67	0.48	0.47	0.83	0.59	0.65	1.04	6.79	0.75
July	1.67	0.46	0.50	0.33	0.62	0.84	0.55	0.70	1.34	7.01	0.78
August	2.65	1.41	0.90	0.92	0.64	0.94	0.72	0.87	1.34	10.39	1.15
September	2.76	0.96	0.92	0.80	0.73	1.11	0.80	0.87	1.64	10.59	1.18
October	2.90	2.16	1.72	1.41	1.29	2.27	1.28	1.89	2.45	17.37	1.93
November	7.07	2.30	2.31	1.98	2.07	3.02	1.80	3.84	4.65	29.04	3.23
December	6.68	3.14	1.97	1.77	1.84	2.68	1.37	3.43	4.43	27.31	3.03
Totals	44.76	26.86	18.65	21.18	14.31	21.35	11.65	19.62	36.20		
Averages	3.73	2.24	1.55	1.76	1.19	1.78	1.06	1.63	3.02		



Rainfall at five deposit gauge stations for 1966

TABLE B 7

Station	Rainfall in inches											
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2.84	5.99	3.31	3.86	3.35	4.30	1.30	3.03	—	4.93	3.66	5.32
2	2.68	5.67	3.23	3.47	2.99	4.37	1.14	2.96	3.19	4.73	3.39	4.96
3	2.80	6.03	3.43	3.90	3.11	4.22	1.18	2.76	3.27	5.04	3.39	5.20
4	2.60	5.95	4.22	3.82	3.39	4.10	1.66	3.07	3.27	4.65	3.74	5.91
5	2.84	5.95	3.98	3.82	2.25	4.14	1.66	3.23	3.43	4.96	3.98	5.91
Monthly Averages	2.75	5.92	3.63	3.77	3.02	4.23	1.39	3.01	3.29	4.86	3.63	5.46

Daily volumetric instrument (Station 18) maintained by Queen's University, Belfast  
(Concentration in microgrammes per cubic metre)

TABLE B 8

Month	Smoke		SO <sub>2</sub>	
	M.A.	H.D.R.	M.A.	H.D.R.
January	301	1,501	218	507
February	200	631	154	372
March	72	255	90	197
April	129	401	148	270
May	60	121	94	171
June	55	231	81	114
July	29	135	64	140
August	71	145	60	168
September	75	213	91	209
October	149	442	134	229
November	153	629	137	368
December	114	270	110	236

Result of Daily Volumetric Instruments maintained by Health Department  
(Concentration of Smoke and Sulphur Dioxide in microgrammes per cubic metre)

TABLE B 9

Month	STATIONS																							
	8			9			10			11			12			13			14			15		
	Smoke		SO <sub>2</sub>	Smoke		SO <sub>2</sub>	Smoke		SO <sub>2</sub>	Smoke		SO <sub>2</sub>	Smoke		SO <sub>2</sub>	Smoke		SO <sub>2</sub>	Smoke		SO <sub>2</sub>	Smoke		SO <sub>2</sub>
	ma	hdr		ma	hdr		ma	hdr		ma	hdr		ma	hdr		ma	hdr		ma	hdr		ma	hdr	
January	191	1701	199	483	397	1584	148	367	138	665	70	250	177	383	77	181	182	695	74	174	163	738	176	437
February	120	421	206	410	172	642	99	176	72	344	45	92	96	456	50	145	109	370	140	347	143	310	189	298
March	92	200	94	244	132	207	101	156	66	108	44	90	40	102	15	48	81	145	60	187	103	159	94	255
April	60	125	163	317	111	223	78	146	35	92	28	61	40	104	24	74	61	96	45	151	88	171	149	400
May	57	107	118	255	76	144	99	226	33	52	54	102	31	68	47	106	46	78	56	115	71	271	119	309
June	35	98	80	201	47	124	73	178	18	33	36	79	26	108	29	98	33	102	45	113	38	64	74	156
July	25	80	54	142	36	74	63	118	17	26	41	74	16	41	22	79	19	44	32	85	23	39	43	94
August	50	98	69	166	67	141	70	160	29	65	33	65	40	100	39	104	44	101	40	92	53	111	65	128
September	76	163	95	181	91	148	88	172	47	83	52	90	49	102	41	89	58	95	46	97	65	122	92	230
October	115	226	195	324	168	380	162	339	79	149	86	169	72	239	67	174	79	140	71	151	88	159	152	459
November	138	436	216	471	194	532	189	386	98	331	98	260	96	362	89	250	103	384	76	196	87	250	202	565
December	116	323	163	367	158	256	153	283	86	178	98	187	66	487	53	142	95	235	57	130	108	400	163	334

ma—Monthly average.    hdr—Highest daily reading.

Heaviest Pollution—

Smoke—College Street, 4th January: 1,701 Mg. per cu. metre.  
SO<sub>2</sub>—Mountcollyer Street, 24th November: 565 Mg. per cu. metre.

Lightest Pollution—

Smoke—Lowwood Park, 7th July, North Road, 4th August: 4 Mg. per cu. metre.  
SO<sub>2</sub>—Queen's Bridge, North Road, Balmoral Avenue, 16th June: Nil.



## PORT SANITARY

During the seven-week period of the Seamen's strike, arrivals were mainly from foreign ports of a number of foreign-owned vessels unaffected by the strike by virtue of being constantly engaged in coast-wise trade into the port. Many ships were laid up at Belfast and these received constant inspection in order to prevent dock-side nuisance or accumulation of swill, etc., which would have attracted rodents. For some time following the resumption of sailings, the increase in cargo into the cross-channel sheds, where space was already somewhat restricted due to demolition and other work in connection with the new passenger terminals and wharf reconstruction, made it difficult to maintain full inspection of landed foodstuffs. Until conditions returned to normal, additional visits were necessary to keep pace with cargo movement.

Included in current construction in the Harbour Estate are new passenger terminals and wharf alterations at the Liverpool and Ardrossan berths, Donegall Quay, to accommodate vessels now being built for use in the cross-channel passenger/cargo service. Special arrangements have been incorporated in wharf reconstruction and vessels to facilitate loading and discharge of vehicles. A large area of the Clarendon Dock has been reclaimed to provide a parking area for vehicles waiting shipment or collection.

Additional equipment has been provided at Spencer Basin East and the Ballast Quay for the handling of increased cross-channel container traffic. More than 500,000 tons of goods are shipped annually by this method, the services being Heysham and Liverpool daily, Garston and Preston thrice weekly. Containers engaged in food transit (and their contents) are inspected where possible. Additional wharfage is under construction, extending southward from the Richardson Wharf and fronting the Herdman Channel. On the east side of the Victoria Channel, preparatory site work has commenced on a 165 feet wide, 1,100 feet long dry-dock capable of accommodating the large tankers and other vessels now building or recently built at the shipyard. When completed it will be the largest dry-dock in Europe.

Dockers refused to discharge cargo from a vessel in which considerable rodent infestation in cargo spaces was revealed on hatch opening. The Master of the vessel and the Shipping Agent were notified of the necessity for immediate eradication treatment and, following baiting and trapping, 32 rats were killed. During the vessel's stay in port, rat-guards were secured to all mooring lines. The Port Health Authority at the next port of discharge was notified of the conditions found and the interim measures taken. Included in the cargo was a consignment of bagged rice, in some of which rats were found to be nesting. 14 bags were found to be contaminated and these were destroyed as unfit for human consumption. Further examination of the landed cargo, in shed, revealed that infestation had extended ashore. Immediate warfarin baiting achieved complete extermination.

The sub-soil under a surface switch box in the Harbour Estate was found to be undermined by the burrowing of rats and had become a breeding place. Attack on cargo, mainly provender, in the adjoining shed soon followed. The site of the switch box was given primary treatment with warfarin and it was then excavated and filled in with concrete. The removal of timber stacks, site cleansing and restoration has reduced rodent harbourage in the areas convenient to the Pollock and Dufferin Dock Sheds into which large quantities of foodstuffs are discharged. A further instance of the creation of harbourage which quickly became rodent infested, occurred at the container bays and disused buildings at Northern Road adjoining the timber pond. The dumping of wood-wool packing, shredded paper, cartons, etc., removed from returned containers created the harbourage. Complaint was made to British Railways and the Harbour Commissioners' Traffic Control Department, following which a further extensive inspection of the area was made in company with the officials concerned. The harbourage was eventually removed and an assurance given that it would not be allowed to accumulate again.

The extent and location of the pigeon population in the Harbour Estate is influenced by the abundance and variety of readily obtainable food, mostly from spillage of grain in the immediate surroundings of silos or on adjoining roadways. Spoliation of cargo in sheds can be caused by droppings from pigeons roosting or nesting in the roof members. Where foodstuffs are likely to be involved, protection by the use of covers is insisted upon. The present method of extermination, such as mechanical trapping and destruction of nests and eggs, leave plenty of birds still at liberty. Included in the demolitions necessary in the construction of new passenger terminals were buildings in Donegall Quay Street, the unoccupied top floors of which had served as a loft for large numbers of pigeons which gained entry through broken windows. Periodically, exits were closed and the contained birds, often in large numbers, were trapped and exterminated. Future legislation permitting the use of narcotised bait should be helpful in eliminating damage to cargo stored in dock-side sheds. Starlings

do not normally inhabit the Harbour Estate in daytime. Towards dusk they arrive in enormous numbers to roost in the shipyard gantries. Recently, in order to discourage such roosting, explosive charges have been set off at the usual arrival time of the starlings, with good effect. Sparrows are few in number and they select sheds mainly used for the reception of animal feeding stuffs.

The necessity for fumigation of vessels with H.C.N. gas did not arise as rodent infestation found was mostly slight and confined to a few cargo spaces: in a few cases where it was more extensive, the retention of cargo for discharge elsewhere made fumigation impracticable. In such cases interim treatment by baiting and trapping was given during the vessel's stay in port. It may be presumed, from the reduction in number of deratting certificates issued, that the combination of half-yearly complete search of all foreign vessels and intensive shore eradication measures has considerably reduced rodent infestation of ships.

On the 1st of May the first of a number of direct shipments, each comprising 11,000 boxes of new potatoes, arrived from Cyprus. All were found to be in a clean and dry condition and free from disease or sustained damage. Consignments, mainly of bagged cereals, at times arrive at the Cross Channel sheds, Donegall Quay, consigned "quay order" to the importer, who permits the cargo to remain stored in shed until it has been finally distributed in small lots over a lengthy period to various customers. The continual disturbance of this cargo and the fact that it remains so long in the presence of other general cargo increases the risk of contamination. Where such circumstances arose, notification to the B.H.C. Traffic Superintendent and importer or agent ensured an early removal of cargo to a warehouse.

Examination and sampling for physico/chemical analysis was made of all consignments of ground-nuts in shell arriving direct from foreign ports. In no case was aflatoxin found to be present in excess of the permitted 0.05 p.p.m. tolerance. Other consignments arriving from cross-channel ports were examined visually and enquiry was made from the Port Health Authorities of ports of loading as to the result of analyses made there.

The landing of large quantities of canned fruit and (in the season) tomatoes of Channel Islands origin in a damaged condition, sustained either on voyage or in handling, has diminished. The use of wooden pallets in stowage together with mechanical handling has been helpful in this respect. Approximately six tons of fresh plaice consigned from Holland to a port outside Northern Ireland, at which (due to a labour dispute) landing was refused, was landed here in an advanced state of deterioration. Early removal for destruction was necessary to avoid odour contamination of other foodstuffs in the vicinity. 100% examination was required in the case of one consignment of fresh tomatoes from the Channel Islands which, due to bad weather on passage, had come adrift in the hold, resulting in extensive damage to crates and contents. Many of the tomatoes were pulped and remained in the hold. From those landed in a loose condition, 8 cwts. were destroyed as unfit for human consumption.

In York Dock "A" Shed leakage from drums of a mercurial product spread over the shed floor to adjoining cargo. The toxicity of this product necessitated extensive decontamination which included thorough cleansing of the floor by fire-hoses and treatment of cargo handling gear, trucks and motor lorries with a neutralising agent. Those who were engaged in the handling of cargo and others who might have been in contact with spillage from it were decontaminated and kept under medical observation for some time. The area of contamination was easily determined as the product contained a purple dye indicator. The only foodstuff in the risk area, bagged lentils, was removed to the Destructor and burned. All necessary precautions were observed during handling and the vehicle used in the removal was cleansed and decontaminated.

386 cartons of Australian beef steak with gravy which arrived in Belfast as part of a direct shipment in September, 1964, and were subsequently removed to a contractor's store, were eventually purchased by a Liverpool merchant and shipped to him in March 1966. On examination at Liverpool it was discovered that the Official Certificate was not of current issue. Enquiry here revealed that the Official Certificate was valid at the time of importation into the United Kingdom through Belfast. This information was forwarded to the Port Health Authority at Liverpool and the cargo was released for distribution. A consignment comprising 9,629 cartons of Canadian canned ham, each containing 12 x 1½ lb. cans, which had been impounded at Spencer Basin shed since arrival from Rotterdam in December, 1964, because the Official Certificates were not of current issue and the Board of Trade import license requirements had not been complied with, was re-exported to Holland on 8th April, 1966.

Circulars relating to modification of Official Certificates for imported meat and meat products were received from the Ministry of Agriculture, Fisheries and Food, also notifications from Port Medical Officers at Cross Channel Ports of imports of food of foreign origin which on examination were found to be unsound or not marked or labelled in compliance with the Public Health (Imported Food) Regulations 1937-1948. These were noted and particular watch kept for products bearing similar marks.



Regular contact is maintained with the Waterguard Officers and the Landing and Shipping Branch of H.M. Customs and Excise, the Immigration Officers, Marine Survey Branch of the Board of Trade, the Portal Inspection Officers of the Ministry of Agriculture, the staff of the Belfast Harbour Commissioners and the Belfast and District Water Commissioners and the Harbour Masters at Bangor and Carrickfergus, all of whom have been most helpful and co-operative.

Tonnage launched by Harland and Wolff, Ltd., during 1966:—

"Sea Quest"	Drilling Platform	Gross Tonnage	7,900
"Orcoma"	Single Screw. Cargo	do.	10,509
"Nairnbank"	Single Screw. Cargo	do.	10,541
"Donax"	Single screw tanker	do.	42,068
"Ulster Prince"	Twin screw Passenger and vehicle ferry	do.	4,600

Naval tonnage:—

"Araluen"	New midship section	1,200
Small Craft		303

Among the vessels which were inspected during refit were:—

Liners:	"Caronia", "Devonia".
Cargo Vessels: (foreign-going)	"Alaric", "Port Launceston", "Port Nicholson", "Roxburgh Castle", "Ruthenic", "Waipawa", "Clan Mac-lachlan", "Crystal Bell", "Crystal Crown", "Delphic Sky", "Kungsholm", "Storstad", "Gitte Petersen", "Garoufalia", "Hemussite", "Julia", "Olga", "Kathar", "Otterburn", "Trefusis". Also the vessels of the Head Line fleet.
Cargo vessels: (coast-wise)	"Ardiatic Coast", "Hibernian Coast", "Hadrian Coast", "Caledonian Coast", "Mayfair Sapphire", "Michael Petersen", "Spaniel", "Stormont", "Colebrooke", "Talisker", also 11 colliers of the John Kelly Ltd. fleet.
Tankers:	"British Vine", "British Trust", "Texaco Maracaibo", "Verena",
Ore carrier:	"La Estancia".
Cross-channel cargo/ passenger vessels:	"Duke of Rothesay", "Duke of Lancaster", "Duke of Argyll", "Irish Coast", "Scottish Coast", "Innisfallen", "Leinster", "Munster", "Ulster Monarch", "Ulster Prince", "Royal Scotsman", "Royal Ulsterman".
Naval and Royal Fleet auxiliaries:	4 vessels.

Amount of shipping entering the port during the year 1966

TABLE B 10

From	Number	Tonnage	Number inspected		Number recorded as defective	Ships on which defects have been remedied	Ships reported as having had infectious disease on board during the voyage
			By Medical Officer	By Port Public Health Inspector			
FOREIGN: Steam } Motor }	1,191	2,118,335	38	1,190	77	72	3
COASTWISE: Steam } Motor }	6,347	4,792,237	5	1,380	51	47	2
TOTALS	7,538	6,910,572	43	2,570	128	119	5

Included in the above table are arrivals at Bangor and Carrickfergus.

# Character of trade of port

(a) *Passenger traffic (other than coastwise) during the year:—*

**TABLE B 11**

Passengers	Aliens		British		Total		Refused leave to land/embark
	Forces	Civilian	Forces	Civilian	Forces	Civilian	
Inwards by ship	27	1,805	—	1,037	27	2,842	5
Inwards by aircraft	5	951	1,577	6,351	1,582	7,402	—
TOTAL	32	2,756	1,577	7,388	1,609	10,244	5
Outward by ship	21	1,541	—	1,367	21	2,908	—
Outwards by aircraft	—	742	584	4,950	584	5,692	—
TOTAL	21	2,283	584	6,317	605	8,590	—

(b) *Cargo traffic:—*

Principal Imports:—Maize; wheat; barley; oats; flour; butter; fresh, dried and canned fruits; meat and meat products; tea; sugar; fish; vegetables; eggs (frozen and powder); confectionery; chocolate; desiccated coconut; wines; ales; cordials; carobs; grain offals; cattle, pig and poultry fodder; hides (cured); timber; wood-pulp; paper; flax; hemp; coir; sisal; rayon fibre; soap; chemicals; fertilizers; crude and industrial oils; coal; duralumin; tin-plate; iron; steel; brass; copper and alloys; machinery; hardware; cement; building materials; vehicles; tar; asphalt; tobacco (leaf and manufactured); cigarettes; drugs.

Principal Exports:—Confectionery; chocolate; milk (preserved and condensed); eggs; bacon; pork; beef; poultry; rabbits; hares; fresh fish; shellfish; potatoes; apples; pears; grass-seed; whiskey; live cattle; sheep and pigs; hides (wet); feeding stuffs; machinery; ropes; twine; thread; linen; tobacco; cigarettes; scrap metal; oil and motor spirit.



(c) *Foreign ports from which ships arrived:—*

**TABLE B 12**

Aarhus	17	Etel	3	Lourenco Marques	2	Riga	8
Abidjan	2	Famagusta	19	Lulea	5	Rijeka	1
Abo	1	Faskrudsfjordur	2	Malaga	2	Rio de Janiero	2
Adelaide	1	Fecamp	1	Manila	2	Rocheftort	1
Albany	3	Fensburg	1	Mantyluoto	5	Rostock	1
Algiers	4	Fortune, N.B.	1	Marans	3	Rotterdam	109
Almeria	4	Fortwilliam, N.F.	1	Mariestad	1	Rouen	93
Amsterdam	23	Framjord	1	Mauritius	1	Roytta	2
Amuay Bay	9	Frederikshavn	1	Melbourne	3	Santa Fe	1
Antwerp	74	Freetown	1	Mena-Abdulla	1	San Francisco	1
Archangel	5	Fremantle	8	Messina	1	St. John, N.B.	13
Baie Comeau	3	Gaevla	1	Middlefart	1	Saint Johns, N.F.	2
Baltimore	2	Galveston	1	Milwaukee	1	St. Malo	1
Bandar Mashur	5	Gambleby	1	Mina-al-Ahmadi	13	St. Nazaire	2
Barcelona	1	Genoa	1	Mo-i-Rana	1	Santo Palo	1
Bargon	1	Geraldton	1	Mombasa	1	San Paolo	1
Bathurst	3	Ghent	40	Montevideo	1	San Sebastian	19
Bay Bulls	1	Göthenburg	13	Montreal	24	St. Vincent	1
Bayonne	15	Grandbank, N.F.	1	Mostaganem	1	Sandersberg	1
Bedi Bunder	2	Groningen	3	Murmansk	1	Santander	1
Beira	7	Gruvon	1	Naniamo	4	Santiago	1
Bergen	4	Haifa	4	Naples	2	Sapele	1
Bilbao	1	Halgo	1	Newcastle, N.B.	4	Savannah	1
Bombay	10	Halifax, N.S.	4	New Orleans	1	Seydisfjord	2
Bordeaux	5	Hamburg	31	Newport News	6	Sigurd fjordur	2
Brake	1	Hamina	7	New Westminster	3	Singapore	4
Bremen	21	Hango	2	New Weymouth	1	Skoghall	1
Bremerhaven	3	Harbour Breton	1	New York	1	Stavanger	1
Bridgewater N.S.	3	Hardsund	1	Nordurfjord	2	Steinhavn	1
Brisbane	1	Haukipudas	1	Norfolk, Va.	8	Stockholm	2
Bruges	2	Helsingborg	1	Norrköping	9	Svolvær	1
Buenos Aires	3	Helsinki	2	Norrsundet	1	Sydney	2
Caibarien	1	Heraklion	1	Nortalje	2	Szczecin	14
Calabar	1	Hobart	2	Nyköping	14	Takoradi	2
Campbellton, N.B.	1	Honfleur	1	Odda	2	Tema	2
Capelle-aux-Bois	1	Hong Kong	2	Odense	4	Ternuezen	1
Cartagena	11	Horsoy	1	Oksfjord	1	Three Rivers	5
Ceinfuegos	1	Ijmuiden	1	Oran	7	Tiko	1
Ceuta	1	Izmir	1	Oslo	20	Tricata	1
Charleston	2	Jacksonville	1	Oxelsund	4	Trinidad	1
Churchill	1	Kalmarsand	1	Palma-de-Majorca	3	Tromsø	1
Cochin	5	Karachi	1	Parrsboro	1	Tunis	1
Colombo	6	Keelavik	1	Pasajes	8	Turku	1
Concarneau	2	Kharg Island	12	Pastellilo	2	Uddevalla	2
Copenhagen	20	Kotka	3	Patras	1	Ulstenvik	1
Corpus Christi	1	Kristiansund	1	Philadelphia	5	Valencia	11
Dahout	1	Kristinehamn	4	Pisco	1	Valparaiso	1
Dakar	11	La Pallice	6	Port Alfred	5	Vancouver	3
Dar-es-Salaam	2	Las Palmas	4	Port Arthur	4	Vargon	1
Delfzijl	3	La Salinas	2	Port Harcourt	2	Vasa	1
Douaranez	2	Larvik	4	Port Lincoln	1	Ventspils	4
Duclair	2	Le Havre	2	Port of Spain	1	Vestmannaeyjar	1
Duluth	6	Le Leque	1	Quebec	5	Victoria, B.C.	2
Dunkirk	11	Le Treport	3	Randers	1	Vigo	1
Durban	4	Leghorn	3	Rangoon	1	Vopnafjordur	2
Elvelandet	1	Libourne	2	Rauma	2	Wallaröo	1
Emden	3	Limasol	3	Rensburg	1	Walvis Bay	14
Eskifjordur	2	Lisbon	1	Reydarfjordur	1	Wilmington	1
		L'orient	15	Reykjavik	7	Wismar	1
						Wormerveer	1
						Yokohama	3
						Zeebrugge	1

The nationalities of the ships which arrived in the port and were inspected were as follows:—

**TABLE B 13**

American	4	German (E)	2	Lebanese	2	Russian	11
Belgian	9	German (W)	199	Liberian	21	South African	12
British	1,256	Ghanaian	1	Maltese	1	Spanish	39
Bulgarian	2	Greek	33	Nigerian	2	Sudanese	2
Danish	71	Icelandic	15	Norwegian	78	Swedish	23
Dutch	595	Indian	11	Panamanian	4	Swiss	1
Finnish	9	Israeli	3	Polish	18	Urugayan	1
French	63	Japanese	1	Republic of Ireland	59	Yugoslavian	3

### **The Aliens Order 1953 (S.I. 1671/1953)**

Under Articles 30 and 33 of the above Order, Dr. J. McA. Taggart, Dr. W. J. McLeod and Dr. A. L. Walby have been appointed by the Ministry of Health and Social Services as Medical Inspectors for the Port of Belfast for the purposes of the Order.

Ships carrying aliens including those granted temporary shore leave 210 inwards; 94 outwards

Aircraft carrying aliens 62 inwards; 54 outwards

### **Water supply**

(a) and (b) for the port and shipping:—

The port fresh water supply is obtained from the Belfast City and District Water Commissioners' mains which feed the Belfast Harbour Commissioners' quayside mains and hydrants. Vessels are supplied from quayside hydrants by the use of meter/standpipes and hoses under the control of the Water Commissioners.

(c) *Water boats*:—

There are no water boats at the port.

### *Water Sampling*

39 samples of drinking water were taken on board vessels and submitted to the Central Laboratory for bacteriological examination. 29 of these samples were found to be highly satisfactory and 10 samples unsatisfactory due to the presence of coliform organisms. In 4 of the unsatisfactory samples, organisms of faecal origin present. Where examination revealed contamination the ships' water tanks, pumps and systems were thoroughly flushed and chlorinated with effective results in every case.

### **Public Health (Ships) Regulations (Northern Ireland) 1954-1964:—**

*Arrangements for dealing with Declaration of Health forms:—*

Declaration of Health forms as recommended by the Association of Sea and Air Port Health Authorities of the British Isles are in use at the port. Special instructions relative to the Port of Belfast are given on the fourth page and a supply of these forms is distributed to H.M. Customs Officers and the Belfast Harbour Commissioners for the use of the Pilotage service.

A Declaration of Health form signed by the master and countersigned by the Ship's surgeon (where one is carried) is received from each ship arriving at the port from a foreign port. The Declaration of Health form is received by the Customs Officer or the Port Public Health Inspector on the arrival of the ship. The answers to the questions contained in the Declaration are scrutinised and supplementary questions asked. In cases where the Customs Officer first boards the ship and Declaration of Health is satisfactory, pratique is granted. If the Declaration of Health is not satisfactory, the circumstances are immediately reported to the Port Medical Officer, who makes investigations before



passengers or crew are allowed to land. Ships arriving at the port are required to display the appropriate quarantine signals as laid down in the regulations. 560 completed Declaration of Health forms were received from vessels arriving at the port from foreign ports other than "excepted ports."

*Boarding of ships on arrival:—*

All ships arriving from a foreign port are boarded on arrival by an officer of H.M. Customs and an officer of the Port Sanitary Authority.

*Notification to the Authority of inward ships requiring special attention (wireless messages, land signal stations, information from pilots, Customs officers, etc.):—*

Arrangements for the transmission of wireless messages from inward bound ships requiring special attention under the Regulations have been made with the various shipping companies and agents in Belfast. Under the arrangements the shipping companies receive the wireless message required under Regulation 13 and forward the information to the Port Medical Officer. Alternatively, or in addition, wireless messages are received direct by the Port Sanitary Authority, the telegraphic address "Portelth, Belfast" having been registered for this purpose. (Regulation 14 (1) and (2)). No land signalling system is in operation. Close co-operation exists between the Port Sanitary Authority and the Officers of H.M. Customs and notifications of ships requiring special attention are received from the latter.

*Mooring stations designated under Regulations 22 to 30:—*

With the concurrence of H.M. Customs and the Belfast Harbour Commissioners, the ordinary places of mooring, discharge or loading have been designated mooring stations in relation to inward ships from foreign ports.

*Experience of working of Regulation 18: restriction on boarding or leaving ships:—*

In carrying out the provisions of this Regulation during the year no difficulty arose and it was not necessary to require passengers to furnish names and destinations, etc., as there was no case of infectious disease on board any ship arriving at the port which required this procedure.

*Arrangements made for:—*

*Regulation 5 (c) (i): Premises or waiting rooms for medical inspection—*

There are at present no premises set apart as a Customs examination hall, waiting rooms or rooms for medical inspection of passengers, as there are no direct passenger sailings between this port and foreign ports. Passengers who arrive by direct cargo ships from foreign ports are examined, if necessary, on board the particular ship.

*Regulation 5 (c) (ii): Premises for temporary isolation of persons as required by the regulations:—*

None provided.

*Regulations 5 (c) (iii): Cleansing, disinfecting or disinfection of ships, persons or clothing:—*

After the removal of a case or cases of infectious disease, disinfection of the ships is carried out by the Port Public Health Inspectors. Clothing and other effects are removed to the Health Committee's Disinfecting Station, Laganbank Road, where they are subjected to steam pressure disinfection. The cleansing of persons is also carried out at this station at which suitable facilities have been provided for this purpose.

*Regulation 5 (d): Arrangements for reception into hospital of persons as required by the regulations:—*

The N.I. Hospitals Authority make provision for the reception of cases of infectious diseases at the Northern Ireland Fever Hospital at Purdysburn. Separate premises situated in the hospital grounds, but self contained and isolated from the other hospital buildings, are available for the reception of cases of smallpox.

*Regulations 5 (e): Ambulance transport:—* The port makes use of the facilities provided for ambulance transport in the City by the N.I. Hospitals Authority.

*Regulations 5 (f): Supervision of contacts:—* 3 notifications regarding contacts of infectious diseases were received from other Sea and Airport Health Authorities during the year.

*Regulation 9: Arrangement for the diagnosis and treatment of venereal diseases among seamen under international agreement:—*

Upon the arrival of a ship in the port, the Master is informed of arrangements for the diagnosis and treatment of venereal disease amongst the seamen. Pamphlets are left which give the location and time of V.D. Clinics and warning of the danger of venereal disease. If continuation of treatment at another port is necessary, the seaman's V44 is completed by the Medical Officer of the V.D. Clinic with particulars of treatment given. The Belfast Harbour Commissioners have permitted the display in the port area of Health Department notices warning of the necessity for diagnosis and information on treatment centres.

*Arrangements for interment of the dead:—*

These are dealt with by the shipping companies or their agents.

*Cases of notifiable and other communicable diseases landed from ships (including coastwise ships)*

**TABLE B 14**

Diseases	Cases during 1966		Ships concerned	Average cases for previous five years
	Passengers	Crew		
Influenza	1	—	1	2
Malaria	—	1	1	—
Measles	—	2	2	1

*Cases of notifiable and other communicable diseases occurring in vessels during voyage but disposed of prior to arrival*

**TABLE B 15**

Diseases	Cases during 1966		Ships concerned	Average cases for previous five years
	Passengers	Crew		
Typhoid	—	1	1	—

No cases of cholera, plague, relapsing fever, smallpox, typhus fever or yellow fever occurred and no plague infected rats were discovered during the year.

*Other illnesses which occurred in vessels during voyage or present on arrival*

**TABLE B 16**

Illness	Foreign-going	Coastwise
Abscess	—	1
Appendicitis	3	—
Boils	2	—
Bronchitis	4	—
Cysts	1	—
Dental	9	—
Diabetes	—	2
Ear Infection	3	1
Eczema	1	—
Eye Infection	1	—
Gastritis	4	—
Gout	1	—
Hernia	2	—
Herpes	1	—
Injury	7	—
Jaundice	1	—
Laryngitis	—	1
Meningitis	1	—
Mental	1	—
Migraine	1	—
Pleurisy	—	2
Pyrexia of Unknown Origin	1	—
Rash	2	—
Venereal Disease	10	2



Measures against rodents

Steps taken for detection of rodent plague:—

On ships, in port:—All ships arriving from ports where plague is endemic are boarded by the Port Public Health Inspector as soon as possible after berthing. Enquiries are made as to the prevalence of rats on board, and as to whether any sick or dead rats were found during the voyage. The ships are then inspected to ascertain the degree of rat infestation, and are periodically inspected during the time they remain in port in order to ascertain if any dead rats have been found in the cargo.

Measures taken to prevent the passage of rats between ship and shore:—

All ships arriving from foreign ports are required to affix rat-guards to all moorings and maintain them so affixed during the time they are in port. It is also recommended that the gangway or other communication with the shore should be raised at least eighteen inches from the ground.

Methods of deratting:—

(a) On ships:—Eradication measure in a vessel are influenced by the extent and location of the infestation. Where such is slight and confined, trapping and warfarin baiting will suffice. In other cases fumigation with hydrogen cyanide is resorted to. The latter is carried out by authorized contractors and in accordance with the provisions of the Hydrogen Cyanide (Fumigation of Ships) Regulations (Northern Ireland) 1952 and under the supervision of the Port Public Health Inspectors.

(b) Premises in the vicinity of docks, quays, etc.:—Sheds, wharves, roads and open spaces in the Belfast Harbour Commissioners' Estate receive routine warfarin baiting. Occupiers of premises within the Estate readily accede to requests for provision of rodent repressive treatment at their premises. When necessary a written notice under the Rats and Mice (Destruction) Act, 1919 is served on the occupiers of the premises concerned.

Measures taken for detection of rats:—

(a) On ships:—Vessels arriving in the port are inspected by the Port Public Health Inspectors and Pests Officer to ascertain the presence of rodent infestation, the extent of same or any condition which would encourage infestation.

(b) On shore:—Sheds, stores, other buildings and structures also timber stacks and open spaces receive continual inspection.

Inspections made by Pests Officer :—

Vessels	..	..	..	..	..	..	..	1,435
Dockside premises, sheds, stores, timber-stacks, building and fitting-out berths also yards and lands	..	..	..	..	..	..	..	1,043

Ratproofing:—

(a) Extent to which docks, wharves, warehouses, etc., are ratproof:—

The quaysides of docks and basins in the port are mainly of solid granite construction with ferro-concrete or granite sett surfacing. In the case of jetties, wharves and quay extensions, some rat harbourage does exist in the under-jetty piling and frame work also in the stone facing of the river bank but the rat passage from one to the other is restricted by the sound construction of quayside surfacing. The use of concrete and/or granite setts laid on concrete in the construction of roads and shed floors ensures effective ratproofing in sheds and other dockside buildings.

(b) Action to extend ratproofing:—

(1) In ships:—Efforts are directed towards restricting free movement in vessels and preventing access to such attractive spaces as bilges for water, under ceilings, sheathing or casing for nesting and food stores. The use of tight fitting steel doors, sheet metal and expanded fine-mesh metal assures perfect protection.

(2) On Shore:—Dock-side premises receive inspection to ensure that they are maintained in sound condition against the entry and harbourage of rodents also that material favourable to harbourage and feeding is not permitted to accumulate. Most owners and occupiers of premises in the port area are fully aware of the damage to merchandise caused by rodents and adopt all practicable measures to prevent their entry.

On 14 occasions accumulations of material offering rodent harbourage were turned over, restacked or removed and ratproofing was made good in 8 cases.

*Number of rats destroyed during year*

(1) On ships:—

**TABLE B 17**

Species	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Black Brown	2 —	— —	2 —	3 —	— —	1 —	3 —	— —	2 —	8 —	2 —	— —	23 —

In addition to the above, 8 mice were destroyed.

(2) In docks, quays, wharves, warehouses etc.:—

**TABLE B 18**

Species	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Black Brown	3 2	8 —	3 4	4 2	3 —	2 —	4 2	— —	3 —	— —	4 —	9 1	43 11

In addition to the above, 16 mice were destroyed.

The number of rats destroyed in the above table were those reported to the Port Public Health Inspectors and Pests Officer, following enquiry from sweepers, storemen, pests eradicating operators, etc.

*Measures of rat destruction on plague "infected" or "suspected" ships or ships from plague infected ports which arrived at the port during the year:—*No plague infected or suspected ships arrived at the port during the year.

*Deratting Certificates and Deratting Exemption Certificates issued during the year*

**TABLE B 19**

Net tonnage	Ships	Deratting certificates issued					De- ratting ex- emption certi- ficates issued	Total certi- ficates issued
		After fumigation with			After trap- ping, poison- ing, etc.	Total		
		HCN	Sulphur	HCN and sulphur				
Under 300 tons	28	—	—	—	—	—	28	28
From 301 tons to 1,000 tons	44	—	—	—	—	—	44	44
From 1,001 tons to 3,000 tons	8	—	—	—	—	—	8	8
From 3,001 tons to 10,000 tons	25	—	—	—	—	—	25	25
Over 10,000 tons	12	—	—	—	—	—	12	12
TOTALS	117	—	—	—	—	—	117	117

14 vessels where rodent infestation was slight were serviced by trapping and baiting and, where deemed necessary, notification of extent of infestation was given to the Port Health Authority of the port of final discharge.

# Hygiene of crews' spaces:

Classification of nuisances:—

TABLE B 20

Nationality of ships	Inspected during 1966	Defects of original construction	Structural defects through wear and tear	Dirt, vermin, and other conditions prejudicial to health
British	1,256	7	89	152
Other nationalities	1,314	3	6	51

The defects found consisted of:—

TABLE B 21

	British	Others
<b>Defects due to wear and tear of the following:</b>		
Bilge limbers and suctions	1	—
Chopping blocks	1	—
Coffee, milk and tea boilers	2	—
Cupboards and tables	1	—
Decks	6	1
Drinking water filters	2	—
Flue pipes	6	—
Flushing valves and piping	6	3
Freshwater systems and valves	4	—
Galley refuse chutes	1	—
Galley stoves	12	—
Heating systems	3	—
Portlights and windows	12	—
Refrigerators, domestic and cargo	10	—
Scupper pipes and fittings	1	—
Soil discharges	2	—
Tiling	6	—
Urinal discharges and stalls	2	—
Ventilation systems	3	—
Ventilators	2	—
Wash basins	—	2
Waste discharges	7	—
W.C. basins	2	—
W.C. joints	1	—
<b>Other conditions:</b>		
Bilges cleansed and painted	10	—
Crew and passenger accommodation cleansed	19	3
Crew and passenger accommodation painted	17	3
Disinfection after infectious disease	1	—
Dockside nuisances	28	18
Domestic refrigerators painted	6	—
Drinking water systems chlorinated	6	—
Drinking water tanks cleansed and cement-washed	12	—
Drinking water vessels cleansed	2	—
Lockers painted	4	—
Refuse on deck removed	7	5
Scuppers cleansed	12	3
Serviced for insects	18	9
Serviced for rodents	4	6
Sullage tanks cleansed	4	—
Swillbins provided	—	1
W.C. basins and compartments cleansed	3	2
<b>TOTALS</b>	<b>248</b>	<b>60</b>



*Action taken following discovery of nuisances or other defects in vessels:—*

It was not necessary to issue formal written notices on any occasion as in every case of verbal notice to Masters, Duty Officers, Owners or Shipping Agents (and, where vessels were undergoing refit, Marine Superintendents and Shipyard Managers) of nuisances and other defects, remedial action followed. Nuisances and other defects arising from defects in original construction of vessels, also any contravention of the Merchant Shipping (Crew Accommodation) Regulations, 1953, were notified to the Nautical Officers of the Board of Trade, Marine Survey Branch. The increase in occurrence (with likelihood of consequent contamination to ships' drinking water) of discharge of faecal matter and galley waste, through ships' overboard discharges on to the dockside surfaces and their hydrants, made it necessary to obtain the assistance of the Belfast Harbour Master to eliminate this practice. Berthing Masters have been directed to notify Masters of vessels on arrival, of the prohibition of such discharges and the penalties for infringement. Verbal notice was given to Masters and Chief Officers of 28 British vessels and 18 other nationalities by the Port Public Health Inspectors, requiring immediate cleansing and protection against recurrence.

**Food Inspection**

*Action taken under the Food and Drugs Act (Northern Ireland) 1958 and Regulations made thereunder:—*

The following samples of food were taken and submitted to

(a) the Central Laboratory for bacteriological examination:—

Bacon grill 1; canned prawns 2; chopped ham with pork 2; corned beef 1; desiccated coconut 12.

In no instance were intestinal pathogens isolated.

(b) the Public Analyst for chemical analysis:—

Chopped pork with ham 1; condensed tomato puree 1; Danish cream 1; flaked peanuts 2; groundnuts 6; instant mashed potatoes 1; lambs' tongues 1; lentils 1; mixed pickles 1; peeled tomatoes 1; pilchard in tomato sauce 1; pink salmon 1; pork luncheon meat 1; red cherries in sugar 1; red cherries in syrup 1; sausage rusk 1; sausage seasoning 1; soft herring roe 1; strawberry jam 1; tea 2.

Analysis showed all samples to be genuine.

All cargoes of foodstuffs on board vessels, in containers or stored in dockside sheds and warehouses were kept under continuous observation and inspected regularly for the detection of unsound food or infringements of the Regulations made under the Food and Drugs Act (Northern Ireland) 1958 pertaining to labelling, handling and conveying of foodstuffs.

*Shellfish:—Information respecting any shellfish beds or layings within the area under the jurisdiction of the Port Sanitary Authority, stating whether they are, in the opinion of the Port Medical Officer, liable to pollution:—*There are no layings of shellfish within the area.

*Report of any action under the Public Health Shellfish (N.I.) Regulations 1936 or the Food and Drugs Act (N.I.) 1958:—*None taken. Under the Belfast Corporation Act 1930, it is an offence to gather shellfish within the area under the jurisdiction of the Belfast Sanitary Authority. Posters are exhibited in the vicinity of the Port area, warning the public against the gathering of shellfish.



TABLE B 22

	Tons	Cwts.	Lbs.
Bacon	—	—	40
Bread improver	—	8	—
Butter	—	7	—
Cake Flour	—	5	—
Desiccated Coconut	—	10	96
Doughnut mix	—	3	34
Fresh fish (Plaice)	5	14	—
Lemons	—	—	35
Lentils	—	3	—
Margarine	—	—	8
Onions	14	3	—
Peach halves in syrup	—	—	40
Pork product (Becam)	—	—	25
Rice	—	14	—
Tomatoes	—	10	—
Wheat Flour	—	17	—

*Dark Smoke (Permitted Periods) (Vessels) Regulations (Northern Ireland) 1965: Smoke observations of ship's funnels:—*

Number of observations (each of 30 minutes' duration) made during the year .. .. .	95
Number observed discharging black smoke over three minutes in a continuous period of 30 minutes .. .. .	6
Number observed discharging dark smoke continuously for periods longer than those permitted in the Schedule to the Regulations, during a continuous period of 30 minutes .. .. .	17

Verbal notice was given by the Port Public Health Inspectors to Masters, Chief Engineers, and Ships' Managers on 13 occasions regarding the volume and duration of emission of dark and black smoke from ships' funnels. In every case immediate remedy was effected. Opportunity is taken, especially when visiting vessels which use steam in heating or propulsion, to contact Chief Engineers with a view to preventing emission of dark smoke from funnels while vessels are in the port.

*Routine and other inspections, additional to those tabulated elsewhere in the Report:—*

- 705 visits to cross-channel passenger vessels.
- 1,150 re-inspections regarding defects, etc.
- 160 inspections regarding issue of Deratting and Deratting Exemption Certificates.

## FACTORIES AND SHOPS

Plans received from the City Surveyor's Department concerning alterations to existing buildings and erection of new buildings were examined and reported on as follows:—

Bakeries .. .. .	4
Bookmakers' Offices .. .. .	2
Bread shops .. .. .	3
Chemists .. .. .	1
Church buildings .. .. .	2
Clubs .. .. .	2
Factories .. .. .	10
Hairdressing .. .. .	3
Hospitals .. .. .	5
Hostels .. .. .	5
Laundrettes and Dry Cleaners .. .. .	17
Mixed shops (non-food) .. .. .	18
Office buildings .. .. .	14
Public shower baths .. .. .	1
Schools .. .. .	12
Sports pavilions .. .. .	2

In addition to the above, 94 reports were made to the City Surveyor's Department on applications under the Planning Acts (N.I.) 1931 and 1944.

The following tables give details of the work carried out during the year in connection with the enforcement of the Factories Acts:—

Number of factories (power) on register .. .. .	2,529
Number of factories (non-power) .. .. .	245
Other premises .. .. .	334

### *Inspections for purposes of provisions as to health*

**TABLE B 23**

Premises	Inspections	Notices issued	Occupiers prosecuted
Factories with mechanical power	2,861	86	—
Factories without mechanical power	135	2	—
*Other premises under the Act (including works of building and engineering construction, but not including outworkers' premises)	441	5	—
Totals	3,437	93	—

\* Electrical Stations reckoned as factories.

TABLE B 24

Particulars	Instances	Remedied	Referred to Chief Factory Inspector	Prosecutions	Outstanding
Want of Cleanliness (Sect. 1)	28	22	3	—	5
Overcrowding (Sect. 2)	1	—	1	—	—
Unreasonable temperature (Sect. 3)	3	1	2	—	—
Inadequate ventilation (Sect. 4)	5	—	5	—	—
Ineffective drainage of floors (Sect. 6)	1	1	—	—	—
Sanitary conveniences (Sect. 7):—					
Insufficient	15	16	1	—	12
Unsuitable or defective	185	182	—	—	66
Not separate for the sexes	1	1	—	—	1
Other offences (excluding offences relating to homework which are reported in Table B 25)	26	4	25	—	5
Totals	265	227*	37	—	89

\* Defects remedied include defects outstanding from last year.

Factory Outworkers (Homework)

TABLE B 25

Nature of Work	Inspections	Outwork in unwholesome premises (Section 115)			Outwork in infected premises (Sections 116/117)		
		Instances	Statutory notices served	Prose- cutions	Instances	Orders made	Prosecutions
1. Making, cleaning, washing, altering, ornamenting, finishing and repairing of wearing apparel	5	—	—	—	—	—	—
2. Making-up, ornamenting, finishing and repairing of table linen (including in the term "linen" articles of cotton and linen mixture)	117	—	—	—	4	2	—
Totals	122	—	—	—	4	2	—

Outworkers premises within the City, notified during the year ..	440
Notices sent to factories employing outworkers .. ..	73
Notice for failing to keep or send lists or outworkers .. ..	16
Outworkers notified from other districts .. ..	2
Outworkers notified to districts outside the City .. ..	273

In addition to the provisions of the Factories Acts relating to Local Authority responsibilities, factories are also subject to the provisions of the Public Health Acts in so far as public health nuisances are concerned. Consequently, during visits to factories, such nuisances as damp conditions, structural defects, etc., are actioned under the Public Health Acts. Details are as follows:—

Inspections of factories and workplaces under the Public Health Acts (N.I.) 1878 to 1926 and the Belfast Corporations Acts 1845 to 1961:—

Nuisances discovered .. ..	101
Statutory notices issued .. ..	70
Nuisances abated .. ..	102
Dangerous structures, risk of fire, etc., reported to the City Surveyor .. ..	10

## Bakehouses

There were 201 bakeries on the Department's register at the end of 1966 (5 fewer than in 1965). 1,217 visits were made in connection with the Food Hygiene (General) Regulations (N.I.) 1964, the investigation of foreign matter in foodstuffs and inspections during the course of re-building and alterations.

The table below sets out particulars of the conditions found in bakehouses and the action taken by the Department.

**TABLE B 26**

Defects	Instances	Notices	Remedied	Out-standing
Want of cleanliness in food rooms	20	8	18	5
Food rooms required redecoration	79	43	71	14
Ceiling, walls, floors, doors, etc., in disrepair	38	17	31	19
Equipment worn or defective, required repair or renewal	2	1	2	—
Cleanliness of machinery, tables, benches, utensils not observed	10	5	9	2
Sanitary conveniences so placed that offensive odours could penetrate food room	1	1	—	1
Unsuitable refuse containers and disposal	7	6	4	3
Unsuitable washing facilities for personal hygiene	19	17	20	12
Unsuitable washing facilities for equipment and machinery	4	4	1	4
Suitable and sufficient ventilation of food rooms not provided or maintained	3	3	3	1
Walls and ceilings of cooking and food preparation rooms not readily cleansed	7	4	6	1
Drain inlets within food rooms	2	1	—	2
Suitable precautions not taken to prevent contamination of food by insects, dirt, animal or otherwise	34	27	28	6
Unsuitable First Aid equipment	6	6	5	1
Other defects	12	8	12	6
Totals	244	151	210*	77

\* Defects remedied include defects outstanding from the previous year.

## Bakehouses

The following foodstuffs examined in bakehouses were found to be unfit for human consumption and were surrendered and destroyed:—

40 lbs. wheat meal; 198 lbs. flour; 50 lbs. golden ginger powder; 30 lbs. baking powder; 80 lbs. salt; 22 packets biscuits; 5 swiss rolls; 4 cakes; 12 lbs. marzipan; 4 jam rolls; 60 packets potato crisps; 3 lbs. piping jelly; 20 lbs. milk powder; 3 lbs. ground mixed spice; 14 lbs. potato flakes; 50 lbs. rice flour; 10 lbs. dried fruit; 14 lbs. jam; 30 lbs. tinned fruit.

## Bread Shops

Bread shops on register at 1st January, 1966	..	..	..	336
Deletions	..	..	..	14
Additions (new premises)	..	..	..	31
Bread shops on register at 31st December, 1966	..	..	..	353
Inspections during the year	..	..	..	1,498



TABLE B 27

Defects	Instances	Notices	Remedied	Out-standing
Want of cleanliness of food rooms	34	21	30	4
Want of cleanliness of persons handling food	4	4	4	—
Ventilation inadequate or not maintained	2	2	1	1
Drain inlets within food rooms	—	—	—	—
Ceilings, walls, floors, windows, doors, etc., in disrepair	8	4	6	3
Ceilings, walls, floors, windows, doors, etc., required cleansing	1	1	—	1
Suitable and sufficient washing facilities not provided	5	5	5	—
Cleanliness of utensils, benches, food containers, etc., not observed	1	1	—	1
Other defects	33	33	23	10
Totals	88	71	69*	20

\* Defects remedied include defects outstanding from the previous year.

**Betting and Lotteries Act (N.I.) 1957**

Number of bookmakers' offices operating in the City ..	115
Applications made to the Courts for certificates of suitability ..	118
Number of certificates granted by the Courts ..	115
Objections to the Courts on health grounds ..	5
Applications withdrawn ..	1
Applications refused by the Courts ..	1

One additional bookmaker's office was granted a licence and added to the Department's register during the year 1966. Of the five objections by this Department to the granting of Certificates of Suitability on health grounds, three was withdrawn because the work required to put the premises in compliance had been carried out satisfactorily before hearing by the Courts. In the other two cases Certificates of Suitability were granted subject to "Undertakings" given to the Courts by the applicants that alterations and work required by the Health Department would be carried out.

**Non-Industrial Premises**

There were 249 inspections of office premises during the year, most of which resulted from complaints made to the Department.

The following table gives particulars of the conditions found:—

TABLE B 28

Conditions	Instances	Notices	Remedied
Offices overcrowded	1	3	1
Offices inadequately ventilated	5	5	5
Offices inadequately lighted	3	3	3
Offices inadequately heated	5	3	4
Offices dirty	8	4	8
Stairways and passages dirty	5	3	7
Offices, etc., required redecoration	2	1	4
Offices not free from noxious fumes	2	2	2
Offices in a damp state	4	3	6
Offices in a defective condition	4	4	3
Unsuitable or no drinking water	1	1	1
Unsuitable or no washing facilities	3	3	2
Other defects	19	11	14
<i>Sanitary Accommodation:</i>			
Insufficient	3	3	2
Not separate for the sexes	1	1	1
Dirty state	6	6	5
No intervening ventilated spaces, screening, etc.	3	3	2
Defective conditions, etc.	17	12	14
Unsuitable urinals	1	1	—
Totals	93	72	84*

\* Defects remedied include defects outstanding from the previous year.

## Pharmacy and Poisons Act (N.I.) 1955

### *Poisons Regulations (N.I.) 1956*

The following is a summary of the work carried out during the year under the above-named Act and Regulations:—

Inspections	..	..	..	..	..	290
Premises on Register at 1st January 1966	..	..	..	..	..	271
Deletions from the Register during the year	..	..	..	..	..	21
Additions (new registrations)	..	..	..	..	..	6
Premises on Register at 31st December 1966	..	..	..	..	..	256
Contraventions discovered	..	..	..	..	..	6

### **Rag Flock Act 1911 and Rag Flock Regulations 1912**

In connection with the above Act and Regulations the following work was carried out during the year:—

Inspections of premises	..	..	..	..	..	46
Premises where rag flock is used	..	..	..	..	..	38
Samples of rag flock submitted for analysis	..	..	..	..	..	34
Samples in compliance with regulations	..	..	..	..	..	32

Two samples of rag flock exceeded the standard of cleanliness prescribed by the Rag Flock Regulations, one to the extent of some 17% in which case a warning letter was issued to the firm concerned. The other case was a much more serious one, the return from the Analyst showing the sample to be some 282% in excess of the standard of cleanliness prescribed and a prosecution was instituted resulting in a fine of £5 and costs against the firm. In previous reports attention has been drawn to the inadequate and out-of-date provisions of the Rag Flock Act 1911; in those days rag flock was the principal filling material used in the bedding and upholstery trades and the Act no doubt did a useful job in so far as its very limited scope allowed. Today, however, in addition to rag flock, children's toys, bedding, upholstery, etc. are stuffed with many other types of filling materials which are outside the scope of the present legislation, consequently, in Northern Ireland, no provision is made for the control of hygiene of these other stuffing materials.

The present Act is inadequate in that it has no control over verminous conditions, dust content, etc., in stuffing materials and does not include any hygiene conditions with regard to hair, fibre, feathers, etc.

When the Rag Flock Act was introduced in 1911 it was applicable to England, Scotland and Ireland and since then it has been found necessary to have more adequate and up-to-date legislation in England, Scotland and Eire to meet the changes in the types of filling materials now used in the children's toys, bedding and upholstery industries and to make more effective and comprehensive provisions for the hygiene of these filling materials.

### **Shops Act (N.I.) 1946**

Work carried out during the year under the Shops Act (N.I.) 1946:—

Shops on Department's Register	..	..	..	..	6,977
Complete surveys made	..	..	..	..	496
Inspections	..	..	..	..	1,927
Contraventions discovered	..	..	..	..	71
Statutory notices issued	..	..	..	..	40

TABLE B 29

Conditions	Instances	Notices	Remedied	Out-standing
Suitable and sufficient means of ventilation not provided	4	3	3	1
Suitable and sufficient ventilation not maintained	2	2	2	1
Efficient means for securing a reasonable temperature not provided	4	3	4	—
Suitable temperature not maintained	1	1	1	1
Suitable and sufficient means of lighting not provided or maintained	—	—	—	—
Insufficient or unsuitable washing facilities	5	5	4	1
Unsuitable facilities for the taking of meals	—	—	—	—
<i>Sanitary Accommodation:</i>				
Insufficient	1	1	1	—
Not provided separately for the sexes	—	—	—	—
Ventilation inadequate	2	2	2	1
Lighting inadequate	11	11	3	8
Floors, walls, basins, seats, cisterns, etc., defective or dirty	45	33	40	10
Screening, doors, fasteners, etc., not provided	3	3	6	1
Absence of an intervening space	2	2	2	—
Totals	80	66	68*	24

\* Defects remedied include outstanding defects from the previous year.

Inspections of Shops under the Public Health Acts (N.I.) 1878 to 1962

In addition to the surveys of shops under the provisions of the shops Act, inspections are also made under the above Acts for damp and defective conditions, etc., likely to be injurious to the health of the employees or conditions contravening local Bye-Laws. The following are particulars of work carried out during the year in this connection:—

Public Health nuisances discovered	..	..	..	..	108
Statutory notices issued	..	..	..	..	65
Nuisances abated	..	..	..	..	93
Reports of contraventions of Bye-Laws	..	..	..	..	7
Reports of dangerous conditions	..	..	..	..	3

Marine Stores

Inspections	..	..	..	..	..	68
Notices issued	..	..	..	..	..	12
Repairs effected	..	..	..	..	..	22



TABLE B 30

Defects	Instances	Notices	Remedied
Rooms not properly lighted	7	2	7
Rooms not properly ventilated	8	3	3
Materials stored so as to obstruct lighting and ventilation	8	3	6
Dustbins not provided or trade refuse not removed weekly	2	2	2
Premises not kept in a clean state	3	3	3
Walls, ceilings, partitions, etc., required decoration	8	3	4
Other defects	6	4	6
Totals	42	20	31*

\* Defects remedied include outstanding defects from the previous year.

FOOD AND DRUGS

During the year the Ministry of Health and Social Services made the following Regulations:—

*The Skimmed Milk with Non-Milk Fat (Amendment) Regulations (Northern Ireland) 1966* (operative 22.7.66) extending the Second Schedule to the Skimmed Milk with Non-Milk Fat Regulations (Northern Ireland) 1961, to exempt the food “S.M.A.” in liquid as well as in powder form from the requirement to bear on the label the declaration “Unfit for Babies” (or the permitted alternatives).

*The Salad Cream Regulations (Northern Ireland) 1966* (operative 19.9.66). These regulations supersede the provisions for salad cream, mayonnaise and any other salad dressing in the Food Standards (Miscellaneous Foods) Regulations (Northern Ireland) 1960. The regulations specify compositional requirements for the amount of vegetable oil, and egg yolk solids contained in salad cream and requirements for the labelling and advertisement of salad cream.

*The Mineral Hydrocarbons in Food Regulations (Northern Ireland) 1966* (operative 27.8.66) prohibit, subject to certain exemptions, the use of any mineral hydrocarbon in the composition or preparation of food, the sale of food containing any mineral hydrocarbon and the consignment or delivery of any food containing any mineral hydrocarbon.

*The Butter Regulations (Northern Ireland) 1966* (operative 1.9.67). These regulations supersede the Food Standards (Butter and Margarine) Regulations (Northern Ireland) 1960 insofar as those regulations apply to butter. The regulations specify compositional requirements for the amount of milk fat, milk solids and moisture in butter, including salted and unsalted butter and requirements for the labelling and advertisement of butter.

*The Colouring Matter in Food Regulations (Northern Ireland) 1966* (operative 26.6.67). These regulations revoke the Colouring Matter in Food Regulations (Northern Ireland) 1961 except that the labelling provisions of those regulations continue in force for a transitional period ending on 31st December, 1967. The regulations

1. prescribe the colouring matter which may be added to food sold for human consumption;
2. limit the use of such colouring matters in or on certain named foods;
3. regulate the amount of arsenic, lead and copper contained in permitted colouring matters and in diluents combined with such colouring matters;
4. make consequential amendments to the Arsenic in Food Regulations (Northern Ireland) 1961 and the Lead in Food Regulations (Northern Ireland) 1961 and
5. revise the advertising and labelling requirements for colouring matter.

*The Antioxidants in Food Regulations (Northern Ireland) 1966* (operative 9.12.66). These regulations revoke the Antioxidants in Food Regulations (Northern Ireland) 1961 which continue in force

however, for a transitional period ending on 8th September, 1967. During that period, the provisions of these new regulations will not have effect in relation to the use, labelling, advertising or sale of any oxidant or of any food containing antioxidant which is in compliance with those regulations (and vice versa). The regulations:—

1. prohibit the sale of food having in it or on it any antioxidant other than as specified in Schedule 2;
2. provide that, where food contains as an added ingredient any specified food described in Schedule 2, the food may contain antioxidant of a description and to an amount specified in the Schedule for that ingredient;
3. provide that where food contains milk fat by reason of the addition, as an added ingredient, of any dairy product, that food may as respects its milk fat content contain antioxidant of a description and to an amount permitted in relation to an amount of anhydrous fat equal to that milk fat;
4. prohibit the sale or advertising for sale, with a view to its use in the preparation of food, of any antioxidant which is not permitted by the regulations and impose requirements as to the labelling of antioxidants;
5. prohibit the description or advertisement of any food as being food intended mainly for babies or young children if it has in it or on it any added antioxidant and
6. provide that, where food is certified by a public analyst as having in it or on it antioxidant not permitted by the regulations, it may be treated for the purpose of section 9 of the Food and Drugs Act (Northern Ireland) 1958 as being unfit for human consumption.

*Cheese Regulations (Northern Ireland) 1966* (operative 1.2.67). These regulations:—

1. specify requirements for the composition and description of cheese including hard cheese, soft cheese (including cream cheese), whey cheese, processed cheese and cheese spread.
2. apply compositional requirements for cheese, processed cheese or cheese spread sold as part of a compound product;
3. specify the permitted ingredients in cheese, processed cheese and cheese spread;
4. specify requirements for the labelling and advertisement of cheese, processed cheese, cheese spread and compound products; and
5. amend the Labelling of Food Regulations (Northern Ireland) 1961.

### *Can Openers*

Early in the year an investigation was carried out on ratchet type openers, following press reports that some openers produced spiral chips of metal which could constitute a health hazard when deposited on the enclosed food. Several types of openers were submitted to the Department of Industrial and Forensic Science. Cans were opened with each type of opener and the quantity of metallic debris produced inside the can was measured. In most cases some metallic particles were produced, but not in sufficient quantity or size to constitute a health hazard.

### *"Pink Elephants"*

Small elephants made from pink plastic material, filled with water and intended to be used when frozen for cooling drinks, were imported into the United Kingdom. They attracted considerable press and television publicity. On examination some of them were found to be leaking. Several were submitted to the Central Laboratory for bacteriological examination and, whilst no definite pathogenic bacteria were found, the contents failed to conform to drinking water standards and therefore could not be recommended.

### **Food and Drugs Sampling**

The total number of samples taken for chemical analysis was 1070: 1018 of these were formal and 52 informal. As will be seen from the following table these samples covered a large variety of products. 34 of the formal samples were found to be adulterated and 6 of the informal samples were reported

as unsatisfactory. Minor cases of deficiency were dealt with by a warning to the persons concerned. In the more serious cases legal proceedings were instituted and fines totalling £111 were imposed.

The following table shows the number of samples procured during the past 5 years and the percentage of adulterated samples.

TABLE B 31

Year	Number			Adulterated			Percentage Adulterated		
	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal	Total
1962	1,130	7	1,137	48	—	48	4.25	—	4.25
1963	1,092	6	1,098	36	1	37	3.30	16.67	3.37
1964	1,044	31	1,075	22	3	25	2.10	9.67	2.32
1965	1,014	69	1,083	52	5	57	5.13	7.25	5.26
1966	1,018	52	1,070	34	6	40	3.34	11.54	3.74

*Samples of Food and Drugs analysed by the Public Analyst*

TABLE B 32

Article	Number	Article	Number
Ale	1	Flour	1
Almonds, ground	2	Flour, self-raising	3
Angelica	1	Food, chemical B.P.C.	1
Apples, liquid	1	Fruit, canned (1 Informal)	3
Aspirins, soluble	1	Fruit, dried	2
Bananas (Informal)	1	Gelatine	1
Barley	2	Gin	3
Beans, baked	2	Ginger	1
Beef, corned	2	Glycerine, lemon and honey	1
Beef, minced	22	Grapefruit (Informal)	1
Beef, roast with gravy	1	Gum, bubble	1
Beer (1 Informal)	3	Gum, chewing	1
Brandy	5	Ham, pressed	2
Bread, pan	1	Honey	1
Bread, soda	1	Honey, liqueur	1
Bread and butter	1	Horlicks food drink	1
Browning	4	Ice-cream	71
Butter	11	Jelly	1
Buttermilk	6	Jelly, decorating	1
Cakes, artificial cream	1	Jelly, mint	1
Cakes, chocolate	1	Juice, fruit	1
Cakes, fish	1	Ketchup, tomato	1
Cakes, fresh cream	1	Lard	2
Cheese	3	Lemons (Informal)	1
Cheese, lemon	2	Lentils	1
Cherries, glaze	1	Linctus, children's cough	1
Chicken, minced with jelly	1	Liver, pig's	10
Cocktail, perry and brandy	1	Loaf, wheaten	1
Coffee, instant (1 Informal)	2	Lollipops, iced	4
Coffee, instant decaffeinated	1	Lozenges, cinnamon	1
Compound, glycerine of		Margarine	5
Thymol B.P.C.	1	Marmite	1
Condiment, non brewed	4	Marzipan	1
Confectionery	1	Mayonnaise	1
Cornflour	1	Meat, pork luncheon	1
Cream, double	4	Meringue, fresh cream	1
Cream, salad	2	Milk, condensed full-cream	
Cream, single	1	unsweetened	2
Cream, sterilized	2	Milk, condensed skimmed	
Cream, whipping	7	sweetened	3
Crystals, lemon foam	1	Milk, full-cream condensed	2
Crystals, orange	1	Milk, full-cream evaporated	1
Dripping	1	Milk, instant non-fat skinmed	1
Eggs, frozen pasteurised		Mixture, baked pudding	1
(Informal)	36	Mustard	1
Essence, coffee and chicory	7	Oil, castor	1
Farola	1	Oil, corn	1
Fat, cooking	4	Oranges (Informal)	1



Article	Number	Article	Number
Paraffin, liquid	2	Sandwiches, chicken	1
Paste, chicken	2	Sandwiches, ham	1
Paste, meat	1	Sauce, cranberry	2
Pastilles, Gee's linctus	1	Sausages and sausage meat	318
Pastry, cream	3	(1 Informal)	4
Pastry, fresh cream	3	Scones, buttered	1
Pastry, fruit squares	2	Semolina	1
Peas, canned (Informal)	1	Shake, raspberry milk	1
Peas, dried	1	Shandy	1
Pepper, ground white	1	Sherry	5
Pies, meat	5	Shrimps in brine	1
Pies, steak	1	Soda, baking	1
Pies, steak and kidney	1	Soft drinks (5 Informal)	25
Pies, steak and onion	1	Soup and soup mix	5
Pies, sweetmince	1	Spread, date sandwich	1
Pork, minced	1	Spread, chocolate	1
Porkburgers	1	Spread, crab	1
Potatoes, instant mashed	1	Spread, salmon	4
Powder, baking	1	Steak, minced	151
Powder, curry	2	Suet, beef	4
Powder, headache	1	Sweetmilk (2 Informal)	141
Powder, ice-cream	1	Syrup, bronchial catarrh	1
Powder, lemonade	1	Syrup, rose hip	1
Powder, orange jelly	1	Tablets, codeine	2
Preserves:—		Tablets, dyspepsia	1
Curd, lemon	2	Tablets, saccharine	3
Jam, apple and raspberry	1	Tablets, vitamin	1
Jam, apricot	1	Tapioca, seed	1
Jam, blackcurrant	2	Tartar, cream of	3
Jam, plum	1	Tarts, custard	1
Jam, seedless raspberry	1	Tea	2
Jam, strawberry	1	Tonic, Vitogen	1
Jelly, apple	1	Turkey, stuffed	1
Marmalade	2	Veal, jellied	1
Mincemeat, sweet	2	Vinegar	1
Pudding, black	1	Vinegar, malt	1
Pudding, instant	1	Vitamin health drink	1
Pudding, white	1	Vodka	1
Rolls, chocolate	2	Whiskey	7
Rolls, ham and chicken	1	Wine	1
Rolls, sausage	4	Yoghurt	3
Rum	3		
Salami, Italian	1		
Salt, celery	1		
		Total	1,070

*Legal Proceedings in respect of adulterated foods*

**TABLE B 33**

Sample	Number taken	Adulterations	Prosecutions	Convictions	Fines	Costs
Beef, minced	22	1	1	1	£5	£2.8.10
Beer	3	1	—	—	—	—
Eggs, frozen	36	1	—	—	—	—
Liver, pigs	10	1	—	—	—	—
Pork, minced	1	1	—	—	—	—
Preserves	14	3	—	—	—	—
Sausages & Sausage Meat	318	16	16	16	£81	£38.9.1
Scones, buttered	4	1	—	—	—	—
Soft drinks	25	4	2	—	—	—
Steak, minced	151	10	10	9	£25	£24.5.9
Sweetmilk	141	1	—	—	—	—

In the cases of the following samples, no legal proceedings were instituted:—beer 1; frozen eggs 1; pig's liver 1; minced pork 1; preserves 3; buttered scones 1; soft drinks 2 and sweetmilk 1.

*Particulars of samples specially reported on by the Public Analyst during the year:—*

*Apple jelly.* One sample contained only 65 per cent of soluble solids. Jams and apple jelly are required to contain not less than  $68\frac{1}{2}$  per cent of soluble solids (Food Standards (Preserves) (N.I.) Regulations 1960).

*Beer.* One sample of beer contained a skin-like residue consisting of mould, hyphae and spores, in which was entangled the body of a common house fly.

*Buttered scones.* The fat spread on one sample of buttered scones was composed of fat having a composition other than butter fat.

*Chocolate roll.* One sample of chocolate roll, slightly low in cocoa content, was reported as of inferior composition.

*Fresh cream pastry.* One sample of fresh cream pastry, the fat in which contained a proportion of fat other than butter fat, was returned as inferior.

*Liqueur honey.* One sample of liqueur honey, stated to contain alcohol equivalent to 2 per cent proof spirit and found to contain an equivalent of 1 per cent proof spirit, was reported as of inferior composition.

*Liquid egg.* One sample of frozen egg failed to pass the alpha amylase test, showing that the egg had not been pasteurised in conformity with the Regulations.

*Marmalade.* Two samples of marmalade contained an insufficiency of soluble solids. Marmalade had respectively by the Preserves Regulations to have at least  $68\frac{1}{2}$  per cent of soluble solids: the samples is required  $66\frac{1}{2}$  and 65 per cent.

*Minced beef.* One sample of minced beef contained sulphur dioxide of the order of 400 parts per million. The addition of sulphur dioxide to minced beef is prohibited.

*Minced pork.* One sample of minced pork contained 3 per cent of starchy filler. Minced pork should be entirely composed of pork.

*Minced steak.* Ten samples of minced steak contained sulphur dioxide in amounts ranging from 130 to 1290 parts per million. The use of sulphur dioxide in minced steak is prohibited.

*Model American cola.* One sample was tainted by traces of paraffin or some similar petroleum product and was returned as inferior.

*Pig's liver.* One sample of pig's liver contained 1.5 parts per million of arsenic. The Arsenic in Food Regulations (Northern Ireland) 1961 prohibits the presence of arsenic in food in an amount exceeding 1 part per million.

*Sausages and sausage meat.* Fourteen samples contained sulphur dioxide in amounts ranging from 520 to 2,600 parts per million. Two samples had the composition of minced beef with sulphur dioxide present. Sausage meat may contain a maximum of 450 parts per million of sulphur dioxide, when declared (Preservatives in Food Regulations (Northern Ireland) 1962).

*Soft drinks.* Two samples of lemonade were contaminated by traces of disinfectant. One sample of pineappleade was contaminated by traces of some phenolic substance. One sample of dry lemonade was tainted by paraffin.

*Sweetmilk.* One sample of sweetmilk contained only 5.7 per cent solids not fat and 1.5 per cent of fat, against 8.5 per cent and 3 per cent presumptive minima and in addition was admixed with a certain amount of caustic alkali, possibly derived from some residue of a bottle cleansing fluid.

## MILK CONTROL

The following tables indicate the control exercised over milk sold within the city.

Dairies where milk is pasteurised	..	..	..	3
Gallons of milk pasteurised per day (average)	..	..	..	44,000
Retail distributors of milk	..	..	..	1,366
Inspections of milkshops	..	..	..	1,049
Samples of sweetmilk taken for chemical analysis	..	..	..	141
Samples of sweetmilk taken for bacteriological examination	..	..	..	982
Samples of sweetmilk taken for culture examination	..	..	..	189

TABLE B 34

Year	Number	Adulterated	Percentage adulterated
1962	212	1	0.47
1963	197	—	—
1964	161	—	—
1965	164	4	2.44
1966	141	1	0.7

Average monthly composition of milk samples submitted and examined by Public Analyst

TABLE B 35

Month	Number	Total solids	Fat per cent	Solids not fat per cent
January	19	12.09	3.55	8.54
February	26	12.18	3.56	8.62
March	41	12.17	3.60	8.57
April	8	12.21	3.63	8.58
May	30	12.11	3.48	8.63
June	3	12.23	3.56	8.67
July	2	12.10	3.50	8.60
August	—	—	—	—
September	—	—	—	—
October	4	12.65	3.90	8.75
November	8	12.60	3.93	8.67
December	—	—	—	—

Particulars of bacteriological examination of milk

TABLE B 36

Test	Grade	Samples examined	Satisfactory		Unsatisfactory	
			Number	Per Cent	Number	Per Cent
Plate Count	Farm bottled	121	90	74.4	31	25.6
Coliform	Farm bottled	121	121	100	—	—
	Pasteurised	861	775	90.01	86	9.99
Phosphatase	Pasteurised	861	861	100	—	—
Culture	Farm bottled	178	178	100	—	—
Viable organisms	Farm bottled	178	143	80.34	35	19.66

Bacteriological examination of milk supplied to schools

TABLE B 37

Test	Grade	Samples	Satisfactory		Unsatisfactory	
			Number	Per Cent	Number	Per Cent
Coliform	Pasteurised	114	100	87.7	14	12.3
Phosphatase	Pasteurised	114	114	100	—	—



### *Mineral waters*

196 samples were procured for bacteriological examination: 4 were found to be unsatisfactory due to the presence of coliform organisms. Each adverse case was investigated by the Food Inspectors and remedial measures taken.

### *Frozen confectionery*

270 samples were examined at the Central Laboratory: 79 of these were found to be unsatisfactory due to the presence of coliform organisms. As all these adverse samples were manufactured outside the city, the Health Authority concerned was asked to investigate the cause.

### *Bacteriological examination of imported egg powder*

Samples taken for examination:—

Frozen eggs	..	..	..	..	..	..	42
Dried eggs	..	..	..	..	..	..	7

No salmonella organisms were isolated in any of the samples.

### *Pasteurisation of liquid eggs*

36 samples of pasteurised liquid eggs were taken from local bakeries and submitted to the Public Analyst for the prescribed Alpha-Amylase Test. One sample did not comply with this test and, as it had been pasteurised outside the city, the Health Authority concerned was notified.

### *Desiccated coconut*

50 samples were taken during the year for bacteriological examination: all produced satisfactory results.

### *Imported fruits*

Several samples of citrus fruits and bananas were examined for the presence of colouring matter and antibiotics. All samples were found to comply with the Colouring Matter in Food Regulations and the Preservatives in Food Regulations.

### *Merchandise Marks Acts 1887 to 1926*

In 19 instances the vendor's attention was drawn to labels on imported foods which did not comply with Orders made under the above Acts. On subsequent inspections it was not found necessary to institute legal proceedings.

### *The control of food unfit for human consumption*

Fire damage in 4 premises (a grocer's wholesale fruit store, licensed premises and a wholesale confectioner's) accounted for a varied selection of foodstuffs destroyed. As will be seen from the following tables much of the Food Inspectors' time was taken up examining canned goods and poultry before their release to the retail trade. Out of 37,339 poultry examined, 592 were found to be unfit for human consumption, 585 of these being boiling fowl. During the year there was a marked increase in the number of complaints from members of the public relating to foreign matter in food. All these cases were investigated and in 24 instances legal proceedings were instituted.

Poultry examined during the year:—

Boiling fowl	..	..	..	..	..	..	33,251
Roasting fowl	..	..	..	..	..	..	1,705
Ducks	..	..	..	..	..	..	248
Turkeys	..	..	..	..	..	..	2,096
Geese	..	..	..	..	..	..	39
Total	..						37,339

Number of carcasses seized:—

Boiling fowl	..	..	..	..	..	..	585 (1.76%)
Roasting fowl	..	..	..	..	..	..	5 ( .29%)
Ducks	..	..	..	..	..	..	1 ( .40%)
Turkeys	..	..	..	..	..	..	1 ( .05%)

*Conditions and diseases for which seized*

TABLE B 38

Diseases	Boiling Fowl	Roasting Fowl	Ducks	Turkeys
Lencosis	27	—	—	—
Tumours	30	—	—	—
Ascites	238	2	—	—
Fever	3	—	—	—
Injuries	69	—	—	—
Abscesses	5	—	—	—
Decomposition	47	—	1	1
Emaciation	110	—	—	—
Moribund	26	3	—	—
Peritonitis	1	—	—	—
Septicaemia	29	—	—	—
Totals	585	5	1	1

*Unfit foodstuffs surrendered by traders after inspection and disposed of at the Municipal Destructor*

TABLE B 39 (a)

Articles	Containers	Articles	Containers
Asparagus	121	Macaroni	101
Baby Food	416	Marmalade	207
Barley	9	Meat	4,240
Beans	4,609	Milk	895
Beetroot	179	Miscellaneous	1,660
Biscuits	188	Paste	5
Cake-mix	1	Peas	3,283
Carrots	809	Pickles	80
Cereal	140	Pies	411
Cheese-spread	16	Pie-Filling	348
Cheese	112	Potato-crisps	348
Coffee	10	Puddings	455
Confectionery	268	Ravioli	360
Cordials	150	Rice	2,747
Cornflour	30	Salad Cream	9
Corn	192	Salt	56
Cream	192	Sauce	74
Curry	142	Sandwich Spread	15
Dried Fruit	3,288	Soup and Broth	12,880
Fish	997	Soup Mix	982
Food Beverages	3	Spaghetti	650
Frozen Foods	720	Stew	206
Fruit	12,911	Syrup	9
Fruit Juice	2,049	Tomatoes	1,365
Ham	642	Tomato Juice	349
Jam	172	Treacle	5
Jellies	38	Vegetables, mixed	720
Ketchup	1	Vegetable juice	23

TABLE B 39 (b)

Articles	Tons.	Cwts.	Lbs.	Articles	Tons	Cwts.	Lbs.
Beans	—	3	47	Ham	16	3	19
Boiling Fowl	—	1	78	Lentils	—	—	6
Butter	—	—	55	Margarine	—	1	91
Cakes	—	—	13	Meat	2	5	105
Carrots	—	2	19	Mustard	—	—	8
Cereal	—	—	23	Onions	6	14	56
Cheese	—	4	28	Peas	—	15	74
Coconut, dessicated	1	9	9	Peel	—	—	25
Confectionery	1	8	98	Potatoes	—	1	53
Eggs, frozen	—	—	28	Rice	—	—	67
Dried Fruit	—	2	59	Suet	—	—	6
Fish	—	9	57	Sugar	—	—	45
Flour	—	3	35	Tea	—	4	44
Fruit	17	—	53	Tomatoes	—	3	62
Ginger shavings	—	1	24	Tomato puree	—	1	56

6,817 certificates were issued during the year in connection with unfit foods surrendered and destroyed.

*Unsound food seized and destroyed in pursuance of Magistrates' Orders*

I tin of strawberries; 2 bottles of kali water; 2 bottles of lemonade; 1 meat pasty; 1 tin of broad beans; quantity of chocolate; quantity of tea; 5 tins of tomatoes; 1 bottle of coca cola; 2 sausage rolls; 3 bottles of sweetmilk; 2 soda farls; 1 packet of potato crisps; 1 cheese sandwich; 39 fowl; 4 turkeys; 3 packets of slimming biscuits; 5 x 3 lb. bags of oatmeal; 8 x 6 lb. tins of corned beef; 1 packet of kippers; 1 sliced loaf; 1 packet of infant food; 1 packet of broth mixture; 1 packet of Fruesli cereal; 5 packets of cheese; 18 lbs. of cod fillets; 1 chewing-gum cigarette; 1 packet of beef sausages; 1 fruit cake; 3 meat pies; 1 cake; 2 sliced plain loaves; 1 puff pastry; 1 sliced pan loaf; 1 cream sandwich; 3 potato farls; 1 French baton; 2 pastry; 1 layer cake.

*Foreign matter in Food*

- Wasp in tin of strawberries
- Caustic material in bottle of sweetmilk
- \*Wire staple in meat pasty
- Piece of glass in jar of baby food
- Maggots in packet of slimming biscuits
- \*Quantity of soil in tin of broad beans
- \*Taint of disinfectant in bottle of lemonade  
(3 instances: 1 prosecution)
- Taint of oil in bottle of lemonade (2 instances)
- \*Chemical in quantity of tea
- \*Dirt in bottle of kali water
- \*Mould on tinned tomatoes
- Portion of plastic material in jar of beetroot
- Mould on sausage rolls
- Mould on tin of corned beef
- \*Foreign matter in bottle of sweetmilk  
(7 instances: 1 prosecution)
- Mould on carton of candy fudge
- Mould on soda farls
- Mould on "Winpy"
- Beetle in packet of potato crisps
- Green fly in salad roll
- Mould on cheese sandwich
- \*Insects in packets of slimming biscuits
- \*Maggots in bags of oatmeal
- Maggots in packet of kippers
- Mould on sliced loaf



- \*Insect in infant food
- Mites in packet of broth mixture
- Maggot in packet of Fruesli cereal
- \*Mould on packet of cheese
- Worms in cod fillets
- \*Insect in chewing gum
- \*Mould on packet of beef sausages
- Portion of plastic material in bottle of lemonade
- Maggots in packet of dates
- Piece of cardboard in quantity of potato chips
- Insect in tin of fruit (2 instances)
- Maggots in quantity of bacon (2 instances)
- Piece of rubber in packet of butter
- Piece of glass in bottle of sweetmilk (2 instances)
- Insect in quantity of minced steak
- Portion of hide in tin of stewed steak
- Mould on pot of jam
- Mould on tin of pork luncheon meat
- Piece of rubber in bottle of lemonade
- Insects in packet of cereal
- Insect in packet of tea
- Fibres in barmbrack
- Piece of wire in meat pasty
- Fibres in tin of peas
- Live worm in salad sandwich
- Portion of cigarette in quantity of potato chips
- Fly in bottle of beer
- Piece of cardboard in bottle of sweetmilk
- \*Portion of cigarette in french baton
- Insect in pastry
- Piece of cord in crusty loaf
- \*Mould on layer cake
- \*Mould on cream sandwich
- \*Mould on three potato farls
- \*Portion of cigarette in pastry
- \*Piece of hessian in puff pastry
- \*Mould on sliced plain loaf
- \*Wasp in cake
- Mould on chocolate eclair
- \*Portion of cigarette in fruit cake
- \*Mould on meat pies
- \*Mould on sliced pan loaf.

\* Denotes legal proceedings taken.

### ICE-CREAM

Regular sampling of ice-cream continued throughout the year. 71 samples purchased for chemical analysis were all found to comply with the required standards. 905 samples were procured for bacteriological examination. Where unsatisfactory counts were reported, the persons concerned were notified.

*Particulars of premises registered for the manufacture and sale of ice-cream*

**TABLE B 40**

	Manufacture	Manufacture and sale	Manufacture and sale of soft ice-cream	Sale only	Vending machines	Storage	Total
Premises registered at 1st January, 1966	2	38	9	960	—	3	1,012
Deletions	—	4	1	88	—	—	93
Registrations	1	2	2	115	—	—	120
Premises on register at 31st December, 1966	3	36	10	987	—	3	1,039

Inspections	..	..	..	..	..	..	3,933
Summonses for selling ice-cream in unregistered premises					..		2
Samples submitted for bacteriological examination				..	..		905
Samples submitted for chemical analysis			..	..	..		71
Cautionary letters sent	..	..	..	..	..		46

*Particulars of ice-cream samples taken during the year for chemical analysis*

**TABLE B 41**

Complied with standards		Did not comply with standards			
Number	%	Fat		Total Solids	
		Number	Per cent	Number	Per cent
71	100	—	—	—	—

*The Ice-cream (Heat Treatment, etc.) Regulations (N.I.) 1961  
Methylene Blue Tests (905 samples) \**

**TABLE B 42**

Grade	Number	Percentage
1	784	87.6
2	65	7.2
3	27	3.1
4	19	2.1

\* 10 samples were invalidated due to laboratory accident

Conditions discovered on inspection of ice-cream premises

TABLE B 43

Conditions	Instances	Remedied	In progress	Out-standing
Suitable and sufficient personal washing facilities not provided	3	3	—	—
Supply of soap and towels not sufficient or not provided	3	3	—	—
Foodstore: walls, floors, ceilings, windows, etc., required cleansing	1	—	—	1
Foodstore: lighting and ventilation not provided and maintained	1	—	—	1
First-aid materials not provided	6	5	—	1
Utensils: unsatisfactory method of cleansing	1	—	—	1
Hot and cold water not provided or insufficient	5	4	—	1
No wash-hand basin provided for personal washing facilities	2	3	—	—
No sink provided for the washing of utensils	1	—	—	1
Drain inlets within or communicating with food room	—	1	—	—
Other defects	2	2	—	—
<i>Sanitary Accommodation:</i>				
Floors, walls, etc., dirty or defective	—	1	—	—
Totals	25	*22	—	6

\* Defects remedied include outstanding defects from the previous year.



## FOOD HYGIENE

During 1966 the Food Inspectors made 20,492 inspections of premises in which food is prepared, stored or sold. Where defects were found notices were served requiring work carried out to bring the premises into compliance with the legislation. This action resulted in a large number of improvements to all types of food premises.

### *Details of plans showing proposed alterations to food premises*

80 plans were submitted to the Department during the year to ensure that the premises classified as follows complied with the relevant legislation.

Fruit and vegetables	..	..	..	..	..	3
Licensed premises	..	..	..	..	..	23
Restaurants	..	..	..	..	..	3
Fish and poultry	..	..	..	..	..	1
Grocery	..	..	..	..	..	6
Abattoir	..	..	..	..	..	1
Butcher	..	..	..	..	..	1
Hostels	..	..	..	..	..	5
Food stores	..	..	..	..	..	5
Cafes	..	..	..	..	..	8
Hotels	..	..	..	..	..	5
Old People's Homes	..	..	..	..	..	3
Industrial canteens	..	..	..	..	..	5
School meals kitchens	..	..	..	..	..	5
Cold stores	..	..	..	..	..	2
Fish and chip shop	..	..	..	..	..	1
Supermarkets	..	..	..	..	..	2
Nursing home	..	..	..	..	..	1
						80

The Town Planning Officer asked for our comments on the proposed conversion of existing property into the following types of food premises:—

Hotels	..	..	..	..	..	..	3
Restaurants	..	..	..	..	..	..	4
Butchers	..	..	..	..	..	..	1
Licensed premises	..	..	..	..	..	..	2
Food manufacturing	..	..	..	..	..	..	3
							13

## Inspection of food premises

*Inspections by trade and business (excluding bakehouses and bread shops)*

The following tables give details of the inspections carried out and the action taken in the various types of food premises throughout the City.

**TABLE B 44**

Trade or Business	Inspections	Trade or Business	Inspections
Bacon curing stores	28	Licensed clubs	11
Bottling stores	34	Markets	595
Butchers	1,658	Meat factories	70
Cafes, restaurants and milk bars	907	Milk retailers	1,049
Chemists	46	Mineral water factories	117
Cold stores	76	Mobile vans	228
Confectioners	2,832	Pastry shops	63
Fish	519	Pet food manufacturers	35
Fish and chips	800	Pet food shops	17
Food manufacturers	65	Poultry	992
Fruiterers	1,414	Provisions	1,051
Grocers	3,933	Public houses	520
Hawker's carts	24	School meals kitchens	64
Hotels and guest houses	109	Shellfish on foreshore	47
Ice-cream	2,063	Supermarkets	380
Industrial canteens	80	Wholesale stores	646
Institution kitchens	19		
Total		20,492	

### *Butchers' premises*

Premises registered at 1st January, 1966	..	..	..	382
Deletions ..	..	..	..	34
Registrations ..	..	..	..	23
Premises registered on 31st December, 1966	..	..	..	371
Inspections ..	..	..	..	1,658

### *Defective conditions discovered on inspection of butchers' premises*

**TABLE B 45**

Conditions	Instances	Remedied	In progress	Out-standing
Unsuitable cloakroom accommodation	4	3	1	—
Suitable and sufficient washing facilities not provided	11	9	1	2
Supply of soap and towels not sufficient; not provided	7	5	1	2
Kitchen walls, ceilings, floors, windows, etc., required cleansing	3	3	—	—
Shop walls, floors, windows, etc., required cleansing	1	1	—	—
Preparation room: walls, floors, ceilings required cleansing	1	1	—	—
Preparation room: walls, floors, ceilings in disrepair	1	—	—	1
Yards: pavings, walls, etc., defective	1	1	—	—
Fixtures and fittings in state of disrepair	2	1	—	1
First-aid materials not provided	6	5	1	—
Sink, hot and cold water not provided or insufficient	7	5	1	2
Other defects	14	12	—	2
No wash-hand basin for personal washing facilities	7	5	1	1
<i>Sanitary Accommodation:</i>				
Not in compliance or not provided for each sex	—	1	—	—
Floors, basins, seats, walls, etc., defective	1	1	—	—
Flush to water-closet defective or inadequate	2	2	—	—
Totals	68	*55	6	11

\* Defects remedied include outstanding defects from previous year.

*Defective conditions discovered in food premises (excluding butchers, ice-cream, fish and chip shops, restaurants, cafes, snack bars, canteens and licensed premises)*

**TABLE B 46**

Conditions	Instances	Remedied	In progress	Out-standing
Sanitary convenience within or communicating direct with food room	3	2	—	1
Suitable and sufficient washing facilities not provided	19	15	2	3
Supply of soap and towels not sufficient or not provided	28	21	4	5
Proper bins for storage of bones and refuse not provided	1	—	—	1
Dining rooms, lighting and ventilation not provided or maintained	1	1	—	—
Kitchen walls, ceilings, floors, etc., required cleansing	2	1	—	1
Kitchen walls, ceilings, floors, etc., in disrepair	1	1	—	—
Foodstore: walls, ceilings, windows, required cleansing	10	9	4	—
Foodstore: walls, ceilings, windows, in disrepair	4	2	3	2
Foodstore: lighting and ventilation not provided and maintained	4	3	2	1
Bars and parlours: walls, ceilings, floors, etc., in disrepair	1	1	—	—
Preparation room not provided	1	1	—	—
Preparation room: walls, ceilings, floors, etc., required cleansing	1	1	—	—
Preparation room: lighting and ventilation not provided or maintained	2	2	—	—
First-aid materials not provided	23	21	3	—
Glasses and utensils: unsatisfactory method of cleansing	6	5	1	—
Sink: hot and cold water not provided or insufficient	37	30	3	5
Yard surface dirty or defective	—	1	—	—
No wash-hand basin for personal washing facilities	37	30	8	4
No sink for utensils	1	2	1	—
Other defects	56	51	8	5
<i>Sanitary Accommodation:</i>				
Sanitary accommodation not provided or insufficient for each sex	2	2	1	—
Floors, basins, seats, walls, etc., dirty or defective	6	3	3	3
Flush to W.C.'s, defective or inadequate	6	7	—	—
Urinals defective or insanitary	1	1	—	—
Urinals, absence of or insufficient flush thereto	1	—	1	—
Light and ventilation not provide or insufficient to sanitary accommodation	8	6	—	2
Totals	262	219*	44	33

\* Defects remedied include outstanding defects from previous year.

*Defective conditions discovered in restaurants, cafes, snack bars and industrial canteens*

**TABLE B 47**

Conditions	Instances	Remedied	In progress	Out-standing
Sanitary convenience communicating with food room	—	2	—	—
Suitable and sufficient personal washing facilities not provided	1	1	—	—
Supply of soap and towels not sufficient or not provided	2	2	—	—
Ceilings, walls, floors, etc., in disrepair	—	1	—	—
Kitchen walls, ceilings, floors, windows required cleansing	1	1	—	—
Foodstore walls, floors, ceilings, etc., required cleansing	2	2	—	—
Unsuitable cloakroom accommodation	—	1	—	—
No proper preparation room	1	2	—	—
Glasses and untesils: unsatisfactory method of cleansing	1	1	—	—
Sink: hot and cold water not provided or insufficient	1	2	—	—
Sink: wastepipe untrapped or connected direct to drain	1	1	—	—
No wash-hand basin for personal washing facilities	2	2	—	—
Other defects	11	12	—	—
	23	30*	—	—

\* Defects remedied include outstanding defects from previous year.



*Defective conditions discovered in licensed premises and bottling stores*

**TABLE B 48**

Conditions	Instances	Remedied	In progress	Out-standing
Sanitary convenience communicating direct with food room	2	2	1	—
Suitable and sufficient personal washing facilities not provided	3	2	—	1
Supply of soap and towels not sufficient or not provided	2	3	—	—
Drain inlets within or communicating with food room	2	1	1	—
Foodstore walls, floors, ceilings, etc., required cleansing	1	2	—	—
Bars and parlours: walls, floors, ceilings, etc., required cleansing	1	2	—	—
Beer cellars and bottle stores: walls, floors, etc., required cleansing	2	—	1	—
Beer cellars and bottle stores: walls, floors, etc., in disrepair	1	1	—	1
Bottling stores: walls, floors, etc., in disrepair	—	1	—	1
Dining rooms: walls, floors, ceilings, etc., in disrepair	—	1	—	—
First-aid materials not provided	1	1	—	—
Sink, hot and cold water not provided or insufficient	4	3	1	—
Other defects	9	7	1	2
No wash-hand basin for personal washing facilities	2	2	1	—
<i>Sanitary Accommodation:</i>				
Sanitary accommodation not provided or insufficient for each sex	2	—	2	—
Floors, basins, seats, walls, etc., dirty or defective	2	2	—	1
Flush to water-closet defective or inadequate	1	—	—	1
Separate means of approach not provided	—	1	—	—
Urinals: absence of or insufficient flush thereto	1	—	1	—
Lighting and ventilation not provided and maintained	—	1	—	—
Totals	36	32*	9	7

\* Defects remedied include outstanding defects from previous year.

*Fish and chip premises*

Premises registered at 1st January, 1966	..	..	..	222
Deletions ..	..	..	..	25
Registrations ..	..	..	..	29
Premises registered on 31st December, 1966	..	..	..	226
Inspections ..	..	..	..	800

*Defective conditions discovered on inspection of fish and chip shops*

**TABLE B 49**

Conditions	Instances	Remedied	In progress	Out-standing
Light and ventilation not provided to the sanitary accommodation or not sufficient	1	1	—	—
Supply of soap and towels not sufficient or not provided	1	2	—	—
Proper bins for storage of bones and refuse not provided	1	—	1	—
Foodstore: walls, floors, ceilings, etc., required cleansing	2	4	—	—
Foodstore: walls, floors, ceilings, etc., in disrepair	1	1	—	—
Preparation rooms: walls, floors, ceilings, etc., required cleansing	1	—	1	—
Suitable and sufficient personal washing facilities not provided	—	1	—	—
Wash-hand basin for personal washing facilities not provided	4	5	—	—
Other defects	6	5	1	1
Totals	17	19*	3	1

\* Defects remedied include outstanding defects from previous year.

# Summary of legislation under which action was taken to bring food premises into compliance

*Notices issued under the various Acts and Regulations*

**TABLE B 50**

Type of Business	Food Hygiene (General) Regulations (N.I.) 1964	Shops Act (N.I.) 1946	Public Health (Ireland) Acts 1878-1966	Belfast Corporation Acts	Bye- Laws	Totals
Butchers' shops	13	—	16	—	1	30
Cafes, restuarants, milk bars	2	—	8	—	—	10
Chemists	—	—	1	—	—	1
Confectioners	10	1	15	1	—	27
Fish	2	—	1	—	—	3
Fish and chips	2	1	4	1	—	8
Fruiterers	1	—	11	—	1	13
Grocers	43	2	28	—	2	75
Hotels and guest houses	—	—	2	—	—	2
Ice-cream	7	—	—	—	—	7
Licensed clubs	1	—	—	—	—	1
Pastry shops	—	—	1	—	—	1
Public houses	7	2	11	—	—	20
Supermarkets	6	1	6	—	—	13
Wholesale stores	1	1	3	—	—	5
Totals	95	8	107	2	4	216

## RODENT CONTROL

Rodent infestation generally and rat infestation in particular has declined in severity and it is significant to note that no major infestation was reported during the year. Whilst the means for a spectacular wiping out of the rat and mouse population are not yet available, it can be claimed that satisfactory progress has been made in the reduction of their numbers. A great deal of importance is attached to systematic surveys of lands, buildings and other places where rodents are likely to be found. In this way infestation is detected and remedied before it has time to develop to serious proportions. The surveys continue to reveal that many sites that were subject to recurring infestation are still trouble-free since they were disinfested and rat proofing carried out some years ago.

The Rodent Control staff examined 11,021 sites during the year in connection with systematic survey and investigation of complaints and a further 13,231 visits were made entailing operational work and re-examination of buildings and lands during or following treatment. During the year 651 sites were found to be infested, the majority slightly and details are shown in the statistical table. As part of the investigation to trace the source of these infestations, the drains of some of these sites were investigated by Public Health Inspectors. Drain tests were subsequently applied and defective drains repaired. The importance of the effective sealing of disused drains, especially at the connections to the sewer on sites where buildings are being demolished, must be stressed. Failure to do so results in outbreaks of rats on the site from an underground defect which may be difficult to trace and several rat infestations during the year were found to be due to this omission. It is also essential that drains undergoing construction or repair should be temporarily capped when the work is left incomplete, especially overnight, as a precautionary measure against the escape of rats from drains or sewers.

During the year 335 buildings and lands were disinfested from rats and mice. Occupiers of buildings and lands who desire assistance for the destruction of rats or mice are required to reimburse the Local Authority for the expenditure incurred.

Statistical table—

Surveys of lands and premises	..	..	..	..	24,252
Lands and premises found infested	..	..	..	..	651
Rat infestation:—					
1. Food premises	..	..	..	..	41
2. Non-food premises	..	..	..	..	336
Mouse infestation:—					
1. Food premises	..	..	..	..	87
2. Non-food premises	..	..	..	..	187
Poison campaigns carried out for occupiers					
1. For rats	..	..	..	..	248
2. For mice	..	..	..	..	133
School buildings and school meals kitchens treated for the Education Department	..	..	..	..	17
1. For rats	..	..	..	..	19
2. For mice	..	..	..	..	3
Premises cleared of rats and mice by Rodent Control staff	..				335
Premises where the clearing process was not complete at the end of the year	..	..	..	..	46
Premises test baited	..	..	..	..	7,715
Premises where the occupier undertook to eliminate rats and mice on statutory or verbal notice under the Rats and Mice (Destruction) Act, 1919:—					
1. For rats	..	..	..	..	129
2. For mice	..	..	..	..	141
Premises having no evidence of rodents at the time of survey but with rodent destruction firms on contract	..	..	..		148
Premises where rat proofing and other work was done to prevent re-infestation	..	..	..	..	29
Notices issued under the Rats and Mice (Destruction) Act 1919					70
Rat destruction campaigns at Corporation tipping grounds	..				8

### Sewer Treatment

Contrary to popular belief, rats found in sewers are not fundamentally different from the common or brown rat found in buildings in towns or in the countryside. Sewer rats are of the same species, *rattus norvegicus*, and are known to use the sewers as a means of travel from one site to another through defects in the drainage system. There is, therefore, a definite link between sewer and surface infestations in the built up areas of the city and it is extremely important that rat destruction on the surface and in the sewers is closely co-ordinated in order to maintain a high standard of rodent control in the city. With the main object of reducing rat infestations of buildings that may have their source from sewers, maintenance treatments for the destruction of rats in sewers were continued during the year with satisfactory results with the assistance of the City Surveyor in providing the essential labour. The City Surveyor's co-operation is gratefully acknowledged.

Rat destruction campaigns carried out in the sewerage system	..	147
Sewer manholes treated	..	5,748
Pre-baits laid	..	15,624
Pre-baits taken	..	9,461
Poison baits laid	..	4,770
Poison baits taken	..	4,182



## Insect Pests

During the year complaints regarding various insects such as bed-bugs, cockroaches, fleas, flies, spider beetles, steamflies and pharoah's ants were investigated and complaints advised on the best method of dealing with their problems. Treatment in special circumstances was carried out on request from Public Health Inspectors and Health and Welfare Visitors. Rag merchants' premises were given monthly treatments on an agreed basis of payment and Corporation property (dwelling houses) was disinfested of vermin, usually on a change of tenancy at the request of the Estates Superintendent.

Inspections of premises on complaint of insects	..	2,372
Premises found to be infested:—		
(a) Bed-bugs.. .. .	41	
(b) Cockroaches and steam flies	95	
(c) Fleas .. .. .	32	
(d) Flies .. .. .	37	
(e) Other insects .. .. .	62	
	<hr/>	267
Premises treated with insecticide .. .. .	387	
Stables and cattle yards — treatments	112	
Rag stores — treatments .. .. .	128	
Corporation tipping grounds.. .. .	12	
Visits to food shops, etc. .. .. .	815	

From April until September, 1966, potential mosquito breeding areas were examined and treated. The following inspections were made, treatments carried out and materials used:—

Surveys of mosquito areas .. .. .	114
Areas treated with larvicide .. .. .	98
Miles run by vehicle .. .. .	432
Gallons of waste transformer oil used.. .. .	800
Gallons of larvicide used .. .. .	49
Gallons of paraffin used .. .. .	28
Gallons of petrol used by vehicle and Tifa machine .. .. .	82

### *Methyl bromide fumigations*

Number of notifications of fumigations of tobacco leaf with methyl bromide .. .. .	6
--	---

### *Disinfection and disinfestation*

The marked reduction in the incidence of infectious disease during the past years has naturally led to fewer demands on the disinfection side of this section. The duties associated with disinfestation continue to more or less the same degree. It may be of interest to list the principal duties for which this section is responsible: investigation of cases of infectious disease; disinfection of infectious premises; disinfestation treatment of verminous premises and persons; disinfection and disinfestation station; delivery and collection of home nursing equipment; transport for Food Inspectors; attendance on volumetric instruments for air pollution; miscellaneous transport services (stores, clinics and schools); drain testing.

Infectious premises disinfected .. .. .	1,181
Verminous premises disinfested .. .. .	294

During the year the Disinfecting and Cleansing Station dealt with the following items and persons:

Infectious articles disinfected by steam .. .. .	791
Articles disinfected by formalin .. .. .	318
Infectious articles destroyed on request .. .. .	161
Public library books withdrawn from circulation .. .. .	102
Private library books withdrawn from circulation and disinfected ..	6
Persons bathed and disinfected .. .. .	7
Articles of home nursing equipment cleansed and disinfected ..	2,654

The Cleansing Clinic at the Laganbank Road did the following work:—

Verminous persons cleansed .. .. .	139
Treatment for scabies:	
(a) First treatments .. .. .	104
(b) Subsequent treatments .. .. .	88
Articles disinfected and disinfested .. .. .	1,879

Persons treated for scabies at the Cleansing Clinic over the past five years:—

**TABLE B 51**

Year	First treatments	Subsequent treatments	Total treatments
1962	156	131	287
1963	126	170	296
1964	182	213	395
1965	66	60	126
1966	104	88	192

Four motor vehicles (excluding a Landrover) are engaged in the work of the Department. During the year these vehicles covered 36,008 miles and used 1,661 gallons of petrol.

Details of legal proceedings instituted and fines, etc., imposed

TABLE B 52

Act	Offence	Summonses	Orders	Fines	Costs
Public Health Acts (N.I.) 1878 to 1966	Failed to abate public health nuisances	1,143	252	£ s. d. 313 2 0	£ s. d. 88 12 0
	Disobedience of Magistrates' Orders to abate public health nuisances	21	—	170 13 0	8 2 0
	Water-closets not provided with sufficient water for flushing	52	—	99 10 0	18 14 0
Belfast Corporation Act (N.I.) 1930	Failed to supply a dustbin	2	—	0 10 0	0 12 0
Belfast Corporation Act (N.I.) 1948 Section 25 (3) Fish Frying Premises	Failed to finish walls, ceilings and floors with hard, smooth and durable material	3	—	5 10 0	1 6 0
	Failed to wear a clean white overall of washable material	1	—	0 10 0	0 7 0
	Failed to keep premises clean	1	—	0 10 0	0 7 0
	Failed to clean utensils	1	—	2 0 0	0 7 0
Public Health (Preservatives, etc., in Food) Regulations (N.I.) 1962	A: Sold food containing preservatives in excess of permitted amount:—				
	1. Sausage meat containing excess sulphur dioxide	4	—	26 0 0	9 11 3
	2. Beef sausages containing excess sulphur dioxide	9	—	40 0 0	21 13 8
	3. Pork sausages containing excess sulphur dioxide	1	—	2 0 0	2 7 8
	B: Sold food containing prohibited preservative:—				
	1. Minced steak containing sulphur dioxide	10	—	25 0 0	24 5 9
Food and Drugs Act (N.I.) 1958	2. Minced beef containing sulphur dioxide	1	—	5 0 0	2 8 10
	Sold food to the prejudice of the purchaser (Section 2(1))	3	—	18 0 0	5 3 6
	Sold or exposed for sale food unfit for human consumption (Section 8)	34	—	121 0 0	8 6 0
	Failed to register premises for sale of ice-cream (Section 17)	2	—	6 0 0	0 14 0
Rag Flock (I) Regulations 1912 Rag Flock Acts 1911 and 1928	Obstructed an authorised officer	1	—	1 0 0	0 7 0
	Flock manufactured from rags which said flock failed to conform to the standard of cleanliness	1	—	5 0 0	0 7 0



Act	Offence	Summonses	Orders	Fines	Costs
				£ s. d.	£ s. d.
Food Hygiene (General) Regulations (N.I.) 1964	Failed to protect food from contamination (Reg. 7)	7	—	15 0 0	2 19 0
	Food stored in a room communicating directly with a sanitary convenience (Reg. 13(4)).	2	—	4 0 0	0 14 0
	Failed to affix Notices near a sanitary convenience (Reg. 13(5))	1	—	1 0 0	0 7 0
	Failed to provide wash-hand basins, hot water, etc., (Reg. 15)	5	—	25 0 0	2 0 0
	Failed to provide first-aid equipment (Reg. 16)	1	—	1 0 0	0 7 0
	Failed to provide accommodation for personal clothing of employees (Reg. 17)	2	—	3 10 0	0 19 0
	Failed to provide adequate supply of hot water (Reg. 18)	2	—	4 0 0	0 14 0
	Failed to provide suitable lighting and ventilation (Reg. 19)	1	—	3 0 0	0 7 0
	Food deposited in a living room (Reg. 20)	1	—	5 0 0	0 7 0
	Failed to ensure cleanliness, repair, etc., of food rooms (Reg. 21)	6	—	18 0 0	2 2 0
	Deposited refuse in food rooms (Reg. 22)	1	—	10 0 0	0 7 0
	Stall which did not bear conspicuously the name and address of the person carrying on the food business (Reg. 24 (2))	2	—	4 0 0	0 14 0
	Failed to provide an adequate supply of water to the wash-hand basin (Reg. 26 (A))	1	—	3 0 0	0 7 0
	Failed to observe conditions applying to unwrapped meat of all kinds (Reg. 28)	1	—	2 0 0	0 7 0

### Conclusion

I have much pleasure in recording my thanks to the Medical Officer of Health and his Deputy for their help and advice and am most grateful to the Administrative Officer and his clerical staff for the maintenance of excellent records and the production of statistics relating to the work of the Public Health Inspectors. The loyalty and hard work of the Inspectorate and their support given to me is gratefully acknowledged.

W. JENKINS, M.R.S.H., M.A.P.H.I.,

*Chief Public Health Inspector.*

# RAINFALL IN INCHES

TABLE B 53

Month	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
January	4.85	4.78	2.52	3.75	4.40	3.67	1.81	2.01	5.43	3.33
February	2.52	6.49	1.40	2.53	4.03	2.06	2.91	0.67	0.75	7.01
March	3.78	2.19	2.89	2.55	1.40	2.02	3.61	3.88	4.60	4.77
April	2.04	2.07	2.72	2.93	4.46	2.23	2.54	1.83	3.70	4.50
May	2.95	3.88	1.94	2.19	3.90	2.24	3.37	2.25	3.25	3.45
June	1.20	7.83	2.64	2.55	2.04	1.59	4.34	2.79	4.23	4.49
July	4.39	4.79	4.36	5.31	1.88	2.25	3.01	1.69	3.49	1.91
August	3.93	4.66	0.87	7.28	3.12	5.32	3.75	3.65	4.23	3.48
September	5.93	5.46	1.53	2.83	4.34	6.08	2.46	4.16	3.20	3.72
October	4.55	2.09	3.28	5.38	4.28	2.24	4.76	5.61	3.74	5.49
November	2.10	2.35	3.43	5.04	2.76	4.16	7.38	3.50	5.85	5.11
December	5.53	6.13	6.07	2.36	3.53	4.00	0.86	5.65	6.66	7.57
	43.77	52.72	33.65	44.70	40.14	37.86	40.80	37.69	49.13	54.83

REPORT OF THE CITY VETERINARIAN FOR THE YEAR 1966

Total Slaughter

The total number of animals (265,602) slaughtered at the Belfast Abattoir in 1966 showed an increase of 13,533 compared with 1965. Cattle showed an increase of 3,554; sheep and lambs an increase of 13,418; pigs a decrease of 1,425 and goats a decrease of 1,014.

Number and description of animals slaughtered each month

TABLE C 1

Month	Cows	Heifers	Bulls	Bullocks	Calves	Sheep	Goats	Pigs
January	478	789	2	4,358	45	18,233	41	403
February	370	465	17	3,870	11	11,387	34	305
March	507	524	6	4,803	29	9,573	28	329
April	265	300	3	3,681	30	9,212	18	285
May	277	354	8	3,886	26	15,711	18	282
June	237	640	1	3,979	21	17,778	4	223
July	272	558	4	3,631	8	15,372	3	184
August	271	627	6	4,444	14	20,453	1	252
September	181	705	8	4,282	223	21,080	3	250
October	169	890	8	4,501	539	23,212	40	278
November	124	687	5	5,274	208	21,088	6	341
December	125	716	4	4,108	100	16,201	8	292
Totals	3,276	7,255	72	50,817	1,254	199,300	204	3,424
Total Cattle	62,674							

Grand Total 265,602

Carcase condemnation

The number of carcasses totally condemned in 1966 was 700, compared with 498 in 1965, an increase of 202. Total condemnations represented 0.26% of the total slaughter. 597 sheep carcasses were seized, representing 0.30% of the total sheep kill, and 54 pig carcasses, representing 1.60% of the total pig kill.

Total seizure from all causes

TABLE C 2

Class	1966	1965	Percentage of total kill
Cattle	42	101	0.07
Sheep & Lambs	597	290	0.30
Pigs	54	82	1.60
Goats	7	25	3.43
Totals	700	498	0.26

As far as individual disease conditions are concerned the greatest losses were due to generalised oedema, decomposition, bruising, abscesses, pneumonia, pyaemia and peritonitis. The majority of generalised oedema and decomposition cases occurred in sheep, while pyaemia was most common in pigs, associated with various injuries such as tail biting, castration wounds and hypodermic injections. Total and partial seizure of carcase meat in all species amounted to 69,028 lbs. Condemned offal and trimmings amounted to 915,697 lbs.



# Reasons for total seizure

TABLE C 3

Cause	Cattle	Sheep	Pigs	Goats	Total
Abscess	1	4	10	—	15
Arthritis	—	1	7	—	8
Bruising	5	6	1	—	12
Decomposed	—	157*	6	—	163
Emaciation (Path.)	—	2	—	—	2
Enteritis	1	—	—	—	1
Fever	—	5	—	—	5
Fibrosis	—	—	1	—	1
Gangrene	—	1	—	—	1
Immature	3	2	—	—	5
Joint Ill	2	—	—	—	2
Jaundice	—	1	—	—	1
Neoplasms	2	4	1	—	7
Oedema	14	389	2	6	411
Piricarditis	—	1	—	—	1
Pyæmia	2	—	12	—	14
Peritonitis	4	3	3	—	10
Septicaemia	1	4	6	—	11
Septic Mastitis	3	1	—	—	4
Septic Metritis	—	1	—	—	1
Septic Pleurisy	3	—	1	—	4
Septic Pneumonia	—	11	3	1	15
Toxaemia	1	2	—	—	3
Strongylosis	—	2	—	—	2
Redwater	—	—	1	—	1
Totals	42	597	54	7	700

\* Includes carcasses of mutton.

# Bovine Cysticercosis

TABLE C 4

Month	Cases detected	Total slaughter (Cattle)	Percentage incidence
January	410	5,672	7.23
February	201	4,733	4.25
March	368	5,869	6.27
April	191	4,279	4.46
May	356	4,551	7.82
June	292	4,878	5.99
July	472	4,473	10.55
August	276	5,362	5.15
September	548	5,399	10.15
October	299	6,107	4.9
November	467	6,298	7.41
December	362	5,053	7.16
Totals	4,242	62,674	6.77%

The percentage incidence of 6.77 represents an increase of 0.91% compared with 1965. This is the highest incidence ever recorded at Belfast Abattoir.

Since financial losses to the meat trade result from this condition a compensation scheme (based on a levy payable by the Trade and supported by Government Funds) was commenced by the Ministry of Agriculture in October, 1966. This has served to alleviate these losses but does not fully meet them. While efficient meat inspection can serve to prevent carcasses infested with *C. bovis* reaching the consumer, it is considered essential that attention be given to the control of this menace at earlier stages, e.g., in the provision of adequate sewage purification systems and the prevention of access of cattle to pasture treated with sludge. The Government Interdepartmental Committee's report on this condition is expected shortly.

## **Assistant City Veterinarian**

Approval having been given by the Health Committee and Council to the post of an Assistant City Veterinarian, it was hoped to appoint an officer during February, 1967.

### **Laboratory Examination of Meat and Meat Products**

With the virtual disappearance of conditions such as bovine tuberculosis and other readily diagnosable diseases, we have seen the ingress of conditions such as salmonellosis and others which cannot easily be detected by visual means. Included in the latter are residues of antibiotics, heavy metals, hormones, pesticides, etc., the presence of which can only be confirmed or even detected by laboratory examination. A laboratory has been provided in the Municipal Abattoir and, once technical staff have been appointed, the meat inspection service will be fully geared to provide, in ante—and post—mortem examinations as well as in those cases demanding it, a full laboratory examination. Another aspect of meat inspection not hitherto utilised—its participation in the control of animal diseases—has commenced with the notification, to producers supplying livestock under the Fatstock Guarantee Scheme, of details of the percentage of fascioliasis encountered in their animals at slaughter.

### **Transport of Meat**

Part VI of the Food Hygiene (General) Regulations (N. Ireland) 1964 required improvements in meat transport standards. While these have undoubtedly been raised, there still remains room for improvement, not only in relation to vehicle construction but also methods of handling. Since the new City of Belfast Meat Plant will provide a chilled meat product it will be necessary to continue the “cold chain” by using low temperature transport, even for short retail delivery.

### **First Aid Facilities**

The provision of a First Aid Room in the Municipal Abattoir has proved a great success and is greatly appreciated by the staff. While most of its work is concerned with minor cuts and bruises, on occasions more serious injuries have occurred. The large number of treatments carried out and the fact that serious forms of illness can occur would appear to justify legislation for the provision of a First Aid Room and a full-time qualified attendant, at least in the larger abattoirs.

### **Occupational Hazards in the Meat Industry**

Most of the conditions in staff transmissible from animals take the form of bovine ringworm and contagious pustular dermatitis and these occur infrequently, mostly during the winter months. They emphasise the need for care in the handling of livestock and a high standard of personal hygiene. An investigation in collaboration with the Department of Microbiology, Queen's University, has revealed the occurrence of positive agglutinin reactions to *Coxiella burneti* in some meat operatives. This organism, originally termed *Rickettsia burneti*, is responsible for Q Fever in human beings and occurs as a normal commensal in sheep.

J. F. GRACEY, Ph.D., B.Agr., M.R.C.V.S., D.V.S.M.

*City Veterinarian.*

**REPORT OF SENIOR MEDICAL OFFICER, MATERNITY AND CHILD HEALTH DIVISION, FOR  
THE YEAR 1966**

**Notification of Births Act**

The total number of births notified as occurring in the area during the year was 10,914. Of these 5,635 were males and 5,278 were females and one was sex unknown (stillborn). Included in this total were 205 stillbirths.

**TABLE D 1**

Births occurring in	
Hospitals	9,715
Private nursing homes	117
Other Institutions	51
Home	944
Home (Hosp. District cases)	87
Total	10,914

**Infant Mortality**

During the year, 264 children died under the age of 12 months giving an infant mortality rate of 32. The rate for the previous year was 27.

**Neonatal and Perinatal Mortality**

Deaths occurring during the first month of life numbered 155 giving a neonatal mortality rate for the year of 19. The rate for the previous year was 18. The perinatal rate, i.e., stillbirths and deaths during the first week per 1,000 total births (live and still), was 34 against 33 for the previous year.

**Maternal Mortality**

For the first time on record there were no deaths attributable to pregnancy, childbirth and the puerperal state. In 1965 there were 2 maternal deaths giving a rate of 0.24 per thousand total births.

**Health Visiting**

60 health visitors were employed at the end of the year. The main part of their work continues to be the visitation and supervision of the health of infants and young children, special attention being given to those infants considered to be in the "at risk" category. A considerable amount of time is devoted to other duties, such as the after-care of patients discharged from hospital, supervision of special diets and the use of medical equipment. A greater amount of their time is now devoted to the well-being of the increasing numbers of old people in the community.

The visitation of tuberculosis and chest cases is undertaken in co-operation with the Central Chest Clinic, a few of the health visitors being allocated specially to this work. A number with special training in mental illness devote part of their time to the after-care of mental cases. They visit the mental hospitals and work with the Psychiatrists and Psychiatric Social Workers. Others attend sessions at the mental day hospitals.

One health visitor is attached to a group practice and undertakes all the health visiting duties connected with the practice. The number carrying out liaison duties with general practitioners continues to grow and the contacts thus formed are most helpful in resolving many varied problems. With the increase in the number of group practices in the city more general practitioners are seeking the services of the health visitors. The long established health visitor/hospital liaison also continues. Two health visitors devote a proportion of their time to diabetic cases. They attend the hospital metabolic unit and visit the patients in their homes.



The Health Visitors assist the Welfare Department in the administration of the Home Help Scheme as far as expectant mothers and mothers of young children are concerned, and close contact is maintained with that Department on various aspects of district work. A large part of the Health Visitor's time is spent on domiciliary health education work and on group teaching. Subjects such as mothercraft, prevention of home accidents, nutrition, food hygiene, care of the aged at home, care of the feet, dental care, etc., are taught in the course of normal visitation or to selected groups. A number had the opportunity of attending refresher courses and conferences, and all continued to assist in research projects.

Visits paid during the year were as follows:—

- (1) To expectant mothers: first visits, 2,215; Re-visits, 2,728; Total 4,943.
- (2) To children under one year of age: First visits, 8,047; Re-visits, 48,128; Total 56,17 5
- (3) To children between 1 and 5 years: 75,182.
- (4) To tuberculosis cases, 5,941.

### Ante-Natal Clinics

As the great majority of expectant mothers attending the ante-natal clinics make arrangements through the clinics for their confinement in hospital, the Clinic Medical Officer maintains close contact with the hospitals. At the Royal Maternity Hospital she also assists at one of the ante-natal sessions and is a member of the honorary medical staff. Specimens of blood are taken for group, Rh factor, Wasserman, etc., and arrangements are in operation whereby private medical practitioners can refer their cases to the clinics for these tests. Some medical practitioners also refer abnormal cases for a second opinion. Instruction in analgesia and in relaxation has been continued in combination with a special series of mothercraft talks. These are open to all ante-natal cases irrespective of whether they are attending for ante-natal supervision or not.

### Clinics and Attendances

TABLE D 2

	1st Visits	Re-Visits
Mount Street (Closed August 1966)	25	170
Mountcollyer Street	54	329
Spier's Place, Shankill Road	76	577
Ariel Street	44	367
Cupar Street	114	831
Totals	313	2,274

2,088 blood tests were carried out during the year.

### Child Health Centres

The number of sessions provided at the end of the year increased to 40 per week — only 17, however, were in buildings owned by the Health Authority; 1 was held in the Ormeau Road Health Centre the other 22 in halls, etc., rented on a sessional basis. As there is no alternative accommodation available in some areas a number of sessions continue to be held in very unsuitable premises.

The educational aspect of the work was kept well to the fore and special stress was again placed on the prevention of accidents. The members of the Voluntary Workers' Association continued their help in the weighing of the babies and arranging social functions for the mothers, and our thanks are again due to them for this valuable assistance in our work.

# Centres and Attendances

TABLE D 3

		Under 2 years	Over 2 years
Highfield	(Monday)	1,495	317
York Street	"	1,064	518
Ariel Street	"	1,671	399
Bloomfield	"	4,800	1,092
Cupar Street	"	2,519	592
Donegall Road	"	2,627	482
Knock	"	2,125	119
Orneau Road	"	2,180	573
Glenard	(Tuesday)	2,298	1,134
Havelock Place	"	1,164	351
Donegall Road	"	1,795	668
Cupar Street	"	1,558	583
Mount Street	"	2,380	772
Ariel Street	"	1,658	206
Ballymurphy	"	412	279
Lincoln Avenue	"	1,714	528
Avoca Street	(Wednesday)	2,902	946
Cupar Street	"	1,578	594
Ligoniel	"	3,152	1,723
Seaview	"	2,466	512
Windsor	"	1,785	806
Mount Street	"	2,517	824
Palmerston Road	"	1,876	575
Susan Street	"	2,517	312
Avoca Street	(Thursday)	1,424	662
Kimberley Street	"	2,356	398
Greencastle	"	1,749	757
Mountcollyer	"	3,061	791
Spier's Place	"	1,986	223
Stranmillis	"	1,837	818
Susan Street	"	2,033	261
Mount Street	"	3,554	1,109
Malone	(Friday)	885	876
Ariel Street	"	2,591	830
Cupar Street	"	1,361	477
Joanmount	"	2,130	791
Spier's Place	"	2,090	489
Strandtown	"	3,027	520
Mount Street	"	2,072	744
Ballymurphy	"	1,556	493
Total attendances		83,965	25,144

## Mother and Baby Homes (Ante and Post-Natal Hostels)

TABLE D 4

Name and address of Home or Hostel	NUMBER OF BEDS						Average length of stay	
	Ante- natal	Post- natal	Labour	Isola- tion	Maternity (excluding labour and isolation)	Cots	Ante- natal	Post- natal
(a) Hopedene	3	11	—	—	—	11	6 weeks	8 weeks
(b) Thorndale	12	16	2	1	17	17	6 weeks	6-8 weeks

The total number of City cases admitted during the year was 30.

These hostels are in receipt of a grant from the Health Committee.

## Residential Nurseries

**TABLE D 5**

Name and address of Nursery	Whether long stay or short stay	Number of beds provided at the end of year				
		Aged 0-9 mths.	10 mth.-2 years	Aged 2-5	Girls over 5	Boys over 5
Glendhu Hostel Holywood Road  (A voluntary Hostel in receipt of a grant from the Health Committee).	Both	1	6	15	16	8

36 children resident in Belfast were admitted to the Hostel during the year.

## Communicable Diseases

**TABLE D 6**

	(1) Ophthalmia Neonatorum		(2) Pemphigus Neonatorum		(3) Puerperal fever		(4) Puerperal pyrexia	
	Dom. confinements	Instit. confinements	Dom. confinements	Instit. confinements	Dom. confinements	Instit. confinements	Dom. confinements	Instit. confinements
Number of cases notified during year	—	—	—	—	—	—	—	2
Number of cases visited by officers of the Local Authority	—	—	—	—	—	—	—	2
Number of cases in which home nursing was provided	—	—	—	—	—	—	—	—
Number of cases removed to hospital	—	—	—	—	—	—	—	—

## Midwives

**TABLE D 7**

	Domiciliary midwives	No. in inst. other than Hospitals	Midwives in hospitals	Midwives in nursing homes	Total
Total number of Midwives notifying their intention to practice during the year in the area of the Local Supervising Authority	43	16	243	6	308

Number of cases in which medical aid was summoned by a midwife during the year under Section 34 of the Nurses and Midwives Act, (Northern Ireland), 1959: Nil

## Domiciliary Midwives

23 midwives were employed on a salaried and 3 on a fee-per-case basis. Progress continues to be slow in recruiting sufficient midwives to enable the service to be placed entirely on a whole-time salaried basis. Two hostels are in operation, one in Springfield Road and the other in Templemore Avenue. Both hostels provide for a number of resident pupil midwives. A self contained flat is incorporated in the Child Health Clinic at Ballymurphy for 2 midwives. The Health Committee also contributes a proportion of the expenditure on the training of pupil midwives in conjunction with the Belfast City and Royal Maternity Hospitals.



Allowances to cover uniform, laundry and travelling are granted, the uniform being that laid down by the Joint Nursing and Midwives Council. Equipment is issued on loan, and all drugs, dressings, etc., in use are supplied to the midwives. Special cots, etc., for the care of premature babies are available. The trend however is for these babies to be admitted to the special nurseries attached to the two large maternity hospitals in the City. Refresher courses are arranged from time to time.

The midwives attended a total of 1,207 domiciliary cases during the year.

Number of midwives suspended from practice during the year in order to prevent the spread of infection—Nil.

**Maternity Medical Services**

General Medical Practitioners agreeing to provide maternity medical services in domiciliary cases are enrolled on a panel maintained in the department and are paid on a fee-per-case basis. Both the doctor and the midwife are paid by the Health Committee.

The following is a summary of the work carried out under the scheme by Medical Practitioners during the year:—

**TABLE D 8**

Domiciliary confinements at which General Practitioner attended	1,133
G.P. Maternity Hospital confinements at which General Practitioner attended	1,851
Women confined at home who were examined ante-natally	1,125
Ante-natal examinations made of women confined at home	9,242
Women referred to institutions for confinement who were examined ante-natally	1,767
Ante-natal examinations made of women confined in institutions	11,187
Final pelvic examinations made of women confined at home	943
Final pelvic examinations made of women confined in institutions	915
Cases of abortion attended	695
Anaesthetics given by second practitioner	13

**Registration of Nursing Homes**

**TABLE D 9**

	Number of Homes	Number of beds provided for:—		
		Maternity	Other purposes	Total
Homes first registered during the year	1	—	11	11
Homes on the register at the end of the year	8	38	66	104

**Action during 1966 :**

Number of applications for registration refused	..	..	..	—
Number of exemptions granted	..	..	..	—
Number of exemptions withdrawn	..	..	..	—
Number of registrations cancelled	..	..	..	1
Number of appeals by aggrieved persons to a Court of Summary Jurisdiction	..	..	..	—
Number of cases in which fines were imposed	..	..	..	—
Number of inspections	..	..	..	55
Number of registered homes not inspected	..	..	..	—

The inspections during the year were made by the Clinic Medical Officer, the Superintendent Nursing Officer, and the Area Superintendent Health Visitors.

Deaths and death rates per 1,000 live births of infants under one year associated with prematurity and, in the post-natal period, associated with diarrhoea and enteritis, pneumonia, broncho-pneumonia, and bronchitis

TABLE D 10

	1957		1958		1959		1960		1961		1962		1963		1964		1965		1966	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Prematurity	91	10.8	85	10.3	90	10.8	73	8.36	97	11.0	83	9.61	85	9.62	94	10.78	85	10.06	75	9.02
Diarrhoea and enteritis	10	1.2	13	1.6	12	1.4	7	0.8	12	1.36	10	1.16	5	0.57	8	0.92	9	1.07	16	1.90
Pneumonia, broncho-pneumonia and bronchitis	26	3.1	45	5.4	34	4.1	21	2.41	34	3.86	22	2.55	31	3.51	27	3.10	25	2.96	34	4.09

# Infant Mortality and Rates per live 1,000 births by cause and sex

TABLE D 11

Causes of death	Under 1 month				1-11 months			Total under 1 year	
	Males	Females	Total	Rate	Males	Females	Total	No.	Rate
Tuberculosis of respiratory system	—	—	—	—	—	—	—	—	—
Tuberculosis, other forms	—	—	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	—	—
Scarlet fever and streptococcal sore throat	—	—	—	—	—	—	—	—	—
Syphilis and its sequelae	—	—	—	—	—	—	—	—	—
Typhoid	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—
Whooping cough	—	—	—	—	1	—	1	1	0.12
Meningococcal infections	—	—	—	—	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	1	1	1	.012
Other infectious and parasitic diseases	—	—	—	—	—	—	—	—	—
Malignant neoplasms including neoplasms of lymphatic and haematopoietic tissues:	—	—	—	—	—	—	—	—	—
(a) cancer	—	—	—	—	—	—	—	—	—
(b) Hodgkins disease and Leukaemia	—	—	—	—	—	—	—	—	—
Benign and unspecified neoplasms	—	—	—	—	—	—	—	—	—
Diabetes	—	—	—	—	—	—	—	—	—
Vascular lesions affecting central nervous system	—	—	—	—	—	—	—	—	—
Non-meningococcal meningitis	—	—	—	—	1	1	2	2	0.24
Other diseases of heart	—	—	—	—	—	—	—	—	—
Influenza	—	—	—	—	—	1	1	1	0.12
Pneumonia (excluding new born)	—	—	—	—	21	12	33	33	3.97
Bronchitis	—	—	—	—	—	1	1	1	0.12
Intestinal obstruction and hernia	1	—	1	0.12	—	1	1	2	0.24
Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the new born	—	—	—	—	12	4	16	16	1.92
Cirrhosis of liver	—	—	—	—	—	—	—	—	—
Nephritis and nephrosis	—	—	—	—	—	—	—	—	—
Congenital malformations	20	17	37	4.45	13	12	25	62	7.46
Birth injury, post natal asphyxia and atelectasis:	—	—	—	—	—	—	—	—	—
(a) with prematurity	17	8	25	3.01	—	—	—	25	3.01
(b) without prematurity	10	9	19	2.28	—	—	—	19	2.28
Infections of new born:	—	—	—	—	—	—	—	—	—
(a) with prematurity	—	—	—	—	—	—	—	—	—
(b) without prematurity	6	2	8	0.96	1	—	1	9	1.08
Other diseases peculiar to early infancy:	—	—	—	—	—	—	—	—	—
(a) with prematurity	26	24	50	6.01	—	—	—	50	6.01
(b) without prematurity	5	3	8	0.96	1	1	2	10	1.20
All other diseases	—	3	3	0.36	15	8	23	26	3.13
Accidents	1	2	3	0.36	—	2	2	5	0.60
Unknown causes	—	—	—	—	—	—	—	—	—
Homicide and operations of war	1	—	1	0.12	—	—	—	1	0.12

## Infant Mortality (By age groups)

TABLE D 12

Sex	Under 1 day	1-6 days	1-3 weeks	1 month	2 months	3-5 months	6-11 months	Total	Deaths of illegitimate children
Males	42	27	18	18	12	25	10	152	4
Females	37	26	5	5	6	18	15	112	1
Total	79	53	23	23	18	43	25	264	5



# Infant and Neo-Natal Mortality Rates, 1885—1966

TABLE D 13

Year	Rate per 1,000 births		Year	Rate per 1,000 births	
	Infant	Neo-Natal		Infant	Neo-Natal
1885	170	—	1950	49	25
1890	162	—	1955	37	21
1895	169	—	1956	29	18
1900	152	—	1957	32	22
1905	136	—	1958	30	19
1910	143	—	1959	33	22
1915	137	—	1960	28	20
1920	132	—	1961	33	23
1925	104	—	1962	29	20
1930	78	—	1963	29	19
1935	112	—	1964	31	20
1940	122	40	1965	27	18
1945	84	40	1966	32	19

— indicates information not available

## Home Nursing Service

The Home Nursing Staff consists of 1 Superintendent, 1 Assistant Superintendent, 54 Queen's Nurses, 2 State Registered Nurses and 2 State Enrolled Nurses. There were 18 nurses in training during the year: 9 were Departmental candidates and 9 were county candidates. The training remains at a high standard and several of the candidates obtained credits in various subjects at the examination.

The total number of visits paid was 241,490 compared with 243,547 in 1965.

Sick room requisites such as Dunlopillo mattresses, air cushions, bed-rests, rubber sheeting, bed-pans, incontinent pads, etc., are sent out to patients on loan when required through the medical comforts depot. The use of sterile packs for the nurses' bags has proved very beneficial. The Marie Curie Fund was utilised for obtaining extra facilities for cancer patients—bedding, clothing, extra nourishment, night sitters, etc.

# Home Nursing Service

## Statistics of Work Done, 1966

TABLE D 14

<b>A.</b> Number of Cases:—		
(i)	Brought forward from 1965	6,272
(ii)	New cases taken on during 1966	4,555
	Analysis of new cases:—	
	Tuberculosis	57
	Cancer	247
	Diabetes	95
	Gynaecological	104
	Pneumonia	21
	Surgical	1,011
	General medical	3,020
(iii)	Removed during 1966	2,900
	Cause of removal:—	
	Convalescent	1,410
	Died	431
	To hospital	658
	Other causes	401
	Remaining on books at end of 1966	7,927
<b>B.</b> Analysis of visits to all cases in 1966:—		
	Tuberculosis	3,879
	Cancer	12,466
	Diabetes	24,747
	Gynaecological	1,366
	Pneumonia	153
	Surgical	34,172
	General medical	164,707
	Total visits	241,490

### Cervical Cytology

A number of cytology sessions were arranged weekly at three health centres during the year. In addition to taking the cervical smear for the early detection of cancer, further examinations are carried out with a view to the detection of other abnormalities and the clinic tends to be more of the "well woman" type. The women are instructed in the self-examination of the breasts for the early detection of cancer. In all cases a report is sent from the clinic to the patient's own doctor.

Women examined	..	..	..	..	..	1,589
Positive cervical smears	..	..	..	..	..	3
Abnormalities found	..	..	..	..	..	862

### After-Care

The Committee's scheme for help in the provision of special diets for a period of up to six weeks in certain cases was in operation throughout the year, and a total of 1,791 cases received assistance. In addition 833 tuberculosis patients received one pint of milk daily on the recommendation of the chest physicians. During the year 1,680 new issues of medical comforts were made and 1,361 persons returned loaned equipment. The number holding equipment at the end of the year was 1,473.

### Chiropody

This scheme provides for the treatment of the aged, handicapped persons and expectant and nursing mothers. At the end of the year 81 sessions were being held weekly, attended by 4 full-time and 5 part-time chiropodists. During the year 7,467 persons received treatment; and the total number of treatments carried out was 19,087, 14,806 at clinics and 4,281 at patients' homes. Unfortunately, owing to the shortage of chiropodists, there was a considerable number of applicants on the waiting list at the end of the year. The Health Committee also gives financial assistance to a scheme organised by the Belfast Council of Social Welfare.

In conclusion I would like to express to the members of the staff my sincere appreciation of the excellent manner in which they discharged their duties throughout the year.

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*Senior Medical Officer*  
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# REPORT OF THE SENIOR MEDICAL OFFICER, SCHOOL HEALTH DIVISION, FOR THE YEAR 1966

## Belfast Grant-Aided Schools

The School Health Service has the duty to carry out medical inspection and treatment of all pupils attending grant-aided schools: the relevant legislation is found in Section 42 of the Education Act (N.I.) 1948, as amended by the Education (Amendment) Act (N.I.) 1956. Table E1 shows the various types of grant-aided schools in the City of Belfast at 31st December, 1966 and the number of pupils attending them. At the end of the year the grant-aided school population was 80,982, an increase of 252 compared with 1965. Not included in the table are five small independent schools with a total enrolment of 280 pupils: these schools do not take part in the various activities of the School Health Service and the pupils do not have systematic medical inspections. Three voluntary secondary schools, all with junior departments, conduct their own schemes of medical and dental inspection and treatment in accordance with Section 42 (6) of the Education (Amendment) Act (N.I.) 1956.

During the year two new nursery classes were opened in primary schools, raising the number of nursery schools and classes to twelve. Two old county primary schools were closed and a new one was opened, reducing the number of county primary schools to 64. Three voluntary primary schools were closed and two new ones opened; a girls' voluntary primary school was amalgamated with a nearby boys' school; these changes reduced the number of voluntary primary schools to 58. The nursery school for the physically handicapped was combined with the main school, reducing the number of special schools to 9.

## Staff

At the beginning of the Christmas term the long-standing shortage of medical officers was relieved by the appointment of a full-time doctor and an increased number of sessions from a part-time doctor. The Northern Ireland Hospitals Authority continued to second a number of ophthalmic specialists, a paediatrician, a surgeon and a psychiatrist; the number of ophthalmic sessions has been inadequate for some years and the waiting-list remains unduly long, but the Authority is making efforts to recruit more ophthalmic specialists. Several suitably qualified nurses were seconded to the Health Visitor's Training Course of the Royal College of Nursing which began in September and a number of nurses returned to duty as health visitors in July, having completed the previous course. Two additional nurses were appointed towards the end of the year to deal with hygiene inspections and other routine work not needing the health visitor's specialised training.

The speech therapy staff consisted of one full-time and five part-time therapists for most of the year. The shortage of therapists continues and we found no suitable candidates for secondment to the training courses held at various centres in Great Britain. There were several inquiries from girls about to leave school, but none had the necessary educational qualifications. The Health Committee makes grants equivalent to a Major Award Scholarship which covers tuition fees, examination fees, books, maintenance and travelling expenses: the course lasts for three years and the trainee contracts to work for at least two years after qualification as a speech therapist employed by the Health Committee. The Youth Employment Service has also tried to find candidates for training, but without success. There were several changes in the staff of physiotherapists and occupational therapists which remained one or two short throughout 1966. A number of these therapists are employed by the Northern Ireland Council for Orthopaedic Development and seconded to work in the School Health Service.

For many years there has been a shortage of specialist staff of all kinds to deal with the various handicapped children at school. Not only is there a shortage of therapists and other medical staff, but educational psychologists, teachers-of-the-deaf and psychiatric social workers cannot be obtained. Housemothers are now more easily found and the Rupert Stanley College of Further Education again held its annual Child Care Course to train them. Suitable students may return to the College for a second year to take the Advanced Child Care Course. Housemothers continue to do excellent work in our special schools, making it possible to deal with very heavily handicapped children who would otherwise have to remain at home.

## School Medical Inspections

The School Health Service (Amendment) Regulations (N.I.), 1963, authorised the supervision of schoolchildren's health by new methods, and in 1964 and 1965 we made trials at 4 schools of selective as opposed to routine medical inspections. Throughout 1966 a trial took place of the selective method applied to all except nursery and special schools. Entrants as usual were given a thorough routine



examination by the medical officer and health visitor which included audiometry and tests of visual acuity and colour vision; immunisations were checked and arrangements made to bring them up to date. Efforts were made to encourage parents to be present at the examination and absentees were followed up by the health visitor; the views of school principals and class teachers were taken into account and both a history sheet completed by the parent and the maternity and child health records were available to examining doctors and nurses. As shown in Table E2 the number of entrants examined as part of the selective procedure totalled 7,484.

A number of schools where medical inspections had commenced in 1965 were completed on the old system in January, 1966 and this involved 748 routine medical examinations at primary schools and 687 at secondary; 405 children at nursery and 458 at special schools also received routine examination (see Table E2). With these exceptions no other children were fully examined as a routine. Children of school-leaving age, Group IV, were fully examined if a study of their records showed this to be necessary; otherwise they were interviewed to discuss their health with special reference to future careers. At these interviews disabilities might be revealed for which a partial or occasionally a full examination was needed. The visual acuity and colour vision of all leavers was tested and a further offer of B.C.G. vaccination was made to defaulters from previous years. Interviews totalled 3,060 and examinations 1,234.

At all ages other than entrants and leavers examinations were made only where this appeared to be necessary on information received from teachers, parents, health visitors, or others. Children for whom no medical records were held were given a full medical examination; these children were usually newcomers to the district or occasionally absentees from previous years or late entrants to school. The 870 children examined in this way are shown in Table E2 under Age Groups II, III, and V, selective.

Annual re-examination by the medical officers of all defects found on previous occasions continued concurrently as part of the selective scheme. Children are added to the re-examination list not only on being found to have defects at school medical inspections, but on the finding of defects at anytime at the clinic or elsewhere, or on information from hospitals or doctors; they remain on the list until they are cured or leave school, so that at least an annual review of all defects should take place, followed by appropriate remedial action. In 1966 the list of those whom we succeeded in re-examining had 24,128 defects in 19,147 children. Table E12 shows further details of these. The re-examination list thus includes at any time about a quarter of the school population.

This extensive trial of the selective procedure was carried out for comparison with the routine methods that have obtained since the beginning of the century. The new system proved satisfactory for entrants and fairly satisfactory for leavers. Some leavers themselves were critical of the interview and remarks such as "he never even looked at me" were sometimes made to the health visitor after an interview involving full discussion of past and present health, tests of visual acuity and colour vision and consideration of the pupil's physical fitness for his chosen career. Some medical officers found it difficult to establish the right atmosphere for an interview without some form of physical examination and it was often difficult to explain why some leavers were examined and others not. Those examined sometimes feared the worst, while those interviewed felt neglected. However, the same procedure for entrants and leavers will continue during 1967, with full examination of all entrants and about one third of the leavers and interview for the remaining two thirds of the leavers.

There was no difficulty in examining fully those children of other ages who were brought forward by teachers and others, but our medical staff felt that the ten year olds (Group III) should again have routine examination and this will be resumed in 1967. This group under the selective scheme needs to be given tuberculin tests and B.C.G. vaccination and to have vision tests and audiometry by the health visitors. This means three separate approaches to the children, apart from the selection of a few hundred for full examination; there is consequently much greater disturbance to the school and more administrative work for the medical staff than under the routine method. The selective system in general is more time-consuming and more difficult to organise. Under the selective procedure it is still necessary to test vision and hearing at intervals. In 1966 the health visitors did vision screening tests and audiometric sweep tests on children in classes PIV and PVI to cover the gap between entrants and leavers examinations; 7,494 vision tests and 10,852 hearing tests were done. Slight abnormalities were kept under observation, while more serious cases received specialist attention.

Table E3 shows the numbers of parents who attended school medical inspections; 45.2% is rather higher than in previous years, and as usual the great majority of these attended with entrants.

Table E4 shows a summary of the action found to be necessary by the school doctors as a result of school medical inspections; as usual considerable numbers of apparently healthy children were found in need of attention not already being provided.

At medical inspections the parents of each child are asked to complete a questionnaire. Among other questions the parents are asked to indicate which of the commoner infectious diseases the child has had. Table E5 shows the numbers and percentages in the various age groups who gave a history of having had these diseases.

### **Defects discovered at Medical Inspections**

Table E7 shows the defects discovered at medical inspections under the selective procedure. The defects are grouped according to the body-system classification used on the standard national school medical inspection record; this does not include the digestive or genito-urinary systems and defects of these are entered under the final group as "other defects." The rates per thousand children examined are not comparable with those in previous years and are in general higher since a great proportion of the children were selected for examination because of known or suspected defects. The rates per thousand leavers interviewed, on the contrary, are generally lower than the rates for entrants and other ages since those interviewed were selected as being unlikely to have defects.

Colour vision was tested in entrants this year rather than in leavers on the grounds that the presence of a colour vision defect should be known to teachers who might modify their handling of the child's problems accordingly. In about one out of seven entrants it proved very difficult to be sure of the results of the tests and these children have been listed for retesting later; the high figure of 1,044 entrants for observation owing to "other eye defects" is accounted for in this way. It has been decided in future to test colour vision at age 10 years. The results of colour vision testing are shown in Table E10.

Table E8 (a) and (b) show the results of tests of visual acuity at medical inspections with the defects for each eye distributed according to their severity. Part (a) of the table shows tests in 12,510 children without glasses and part (b) shows tests repeated in the 933 children who had glasses. It was not possible to test accurately the vision of 138 entrants and these are omitted from the table.

Table E9 shows the doctor's assessment of the nutritional state of the children at medical inspections; as usual there were very few badly nourished children.

### **Heights and Weights**

Table E6 shows data relating to the heights and weights of children examined under the selective scheme. For height and weight at each year of age are given the mean with its standard error, the standard deviation, and the co-efficient of variation.

### **Tuberculin Tests and B.C.G. Vaccinations**

Table E11 shows the results of tuberculin tests in 3,940 unvaccinated persons of all ages, 9.2% of whom were found to be tuberculin positive and of 1,805 previously vaccinated persons, 95.8% of whom were positive. The rate of 9.2% positive in unvaccinated persons is the lowest yet recorded for the young in Belfast since routine tuberculin testing started in 1953, the previous lowest rate being 11.4% in 1965 and 1964. However, this year's table includes a number of infants and young children, most of whom would be expected to be negative and the selective method of reaching many of the children makes the table hardly comparable with those of previous years. Attempts were made to test children at about ten years of age, but this was more difficult than usual because the children could not be dealt with at the ten-year-old medical inspection as in the past. Attempts were also made to test those leavers who had defaulted in the past. During 1966 our doctors vaccinated 3,100 children with B.C.G. Returns are made to us of Belfast residents of any age given B.C.G. vaccination by other authorities; these amounted to 3,059 for the year.

### **Handicapped Pupils**

Section 30 of the Education Act (N.I.) 1947, as amended by the Education (Amendment) Act (N.I.) 1956, directs that all handicapped children over the age of two years shall be found and given suitable special educational treatment: the Handicapped Pupils and Special Schools Regulations (N.I.), 1957 define ten categories of educational handicap.

Table E14 shows the numbers of educational handicaps affecting Belfast boys and girls at 31st December, 1966. Tables E15 to E20 relate to a count on the same date, but the list is a constantly changing one, with additions and deletions almost daily owing to the arrival of newly handicapped children and the discharge of others cured or over school age. There is a tendency for the numbers to



increase, partly owing to more complete ascertainment and partly because improved treatment keeps more damaged children alive. Ten years ago, for example, of children born with the spinal abnormality spina bifida, only one in ten survived early childhood; now seven out of ten can survive to school age at least and many of these are severely disabled with leg paralyses and bowel and bladder incontinence. Many children have several handicaps, each of which if it existed alone would necessitate special educational treatment and so it is necessary to reckon in terms of handicaps as well as of children; thus Table E14 shows that 5,290 handicaps were distributed among 4,600 children and indicates the type of schools where the problems are being dealt with. Table E15 shows the numbers of children having one handicap and Tables E16 and E17 show how the multiple handicaps were combined.

Table E19 shows the main defects affecting the children at Fleming Fulton School; these are serious and permanent handicaps which make it necessary for the children to spend the greater part of their school career in the special school where medical treatment and special education are combined. The main work of rebuilding Fleming Fulton School was completed during the year, but the school had already outgrown its accommodation before it was finished and the addition of two more classrooms was commenced; these classrooms were nearly finished by the end of the year. During the Summer Malcolm Sinclair House ceased to be a separate school and moved into the new nursery wing built as part of Fleming Fulton School. The school deals with physically handicapped pupils from the whole of Northern Ireland and at the end of 1966 there were 50 pupils from outside Belfast.

At Cedar Lodge School the children are classed as delicate with disabilities less severe and often temporary. The average duration of stay at this school is about three years, after which normal schooling may be resumed. Table E20 shows the defects of the 54 children admitted during 1966.

The child guidance clinic at Fortwilliam which was completed in 1965 was worked at the rate of two sessions per week at the rate of two sessions per week this year. Shortage of child psychiatrists made it impossible for the Hospitals Authority to provide more sessions. Sixteen new cases were taken on by the psychiatrist and in all 93 attendances were made in 1966. The premises were in daily use throughout the year by the school psychological service and by the remedial teachers.

## School Clinics

The new school clinics at Cupar Street and Lincoln Avenue have continued to be busy. The older clinics at Academy Street and Cherryville Street are also to be replaced, and a site for the former has not yet been found. These clinics form the base from which the varied activities of the School Health Service are carried out. The doctors, health visitors, therapists and other workers are attached to one or another of the four school clinics, each of which deals with a quarter of the city having about 50 schools and about 20,000 schoolchildren. The medical and dental records of these children are kept at the clinics and it is here that many types of treatment and investigation are done. The premises are also used by the school psychologists and by social workers of the Welfare Authority who hold sessions for the adult handicapped. A group of parents of deaf children meets monthly in the evening at Cupar Street Clinic when a teacher-of-the-deaf, the senior health visitor and others help with their problems.

Many of the problems dealt with at a school clinic are of a psychological nature and require the combined efforts of the doctor and the psychologist; often these problems have their origin in the school, where the relief of stressful situations may be needed. Remedial teachers work with individual children or small groups in the clinics to assist them to make up ground lost through illness or other eventualities. A number of alarm buzzers are in use for the treatment of enuresis; these are lent to the home for a few weeks with careful supervision by the medical and psychological staff and have often proved effective in helping to control bedwetting.

Infestation with the head louse continues to be a troublesome problem in schoolchildren, about one in twenty of whom is still infested in this city. Heads are examined at intervals in schools and infested children are cleansed to the satisfaction of the health visitor before being allowed to return to school; the parents are advised how to cleanse, fine comb, and maintain their children's hair and cleansing is also done at the school clinics which are equipped and staffed for this. Unfortunately re-infestation occurs almost at once in the home from older relatives. The amount of infestation has decreased only slowly in the past fifteen years and remains one of our most intractable problems.

## Health Education

Lectures, films, demonstrations, courses and conferences are held in clinics and schools and all medical students, student nurses, student health visitors and student district nurses are shown the



working of the clinics and receive lectures on the local authority's health services. The health education programme includes the use of posters and pamphlets, and film shows or talks by health visitors, doctors and dentists are given to parents' associations.

In 1966 a trial commenced of dealing with health education of schoolchildren in a more systematic way. Several health visitors devised child-care courses which were given to girls at secondary schools. The courses have taken various forms but usually one or two school periods per week have been given by the schools for up to about 20 weeks. The health visitor demonstrates such matters as bathing, clothing and feeding a young baby using suitable plastic dolls and all the necessary equipment. The children do these things for themselves and are given every encouragement to talk about and question what is being done, so that they really teach themselves under the health visitor's guidance and the formal atmosphere of a lecture is avoided. From care of the baby it is easy to progress to personal hygiene at all ages, with discussion about the desirability of cleanliness, about suitable clothing, diets and sleep and the use of leisure. In the other direction, the birth of the baby comes naturally into the picture and thence to pregnancy and conception, with the problems of interpersonal relationships, boy friends, courtship and marriage freely discussed. These courses have been welcomed by those school principals to whom we have been able to offer them and by parents, but the response of the girls themselves has been so favourable that we have been pleasantly surprised. At the end of a session, the class invariably wants to know when the health visitor will be back and sometimes the discussion continues out to her car, with an excess of willing helpers carrying and packing the equipment. One of the schools included a session with the health visitor as part of their open day, when many parents and other visitors were able to see what takes place.

We had feared that some might not approve of parts of what we include in these courses, but we have had nothing but favourable comment. Some parents and teachers have, in their own words, had their eyes opened and no less have we. The keenness of the girls to have facts rather than rumour about conception, pregnancy, childbirth and the care of children has become abundantly clear. It is equally clear that the girls have in the past not known where to get the facts and that many of them were almost completely ignorant on all matters relating to sex, while others held most wildly-misformed views and superstitions. Once started on these child-care courses, the health visitor soon found it possible to establish an atmosphere of confidence in which anything could be discussed with the children without embarrassment on either side, though each had to learn the other's terminology. The pupils themselves introduced the topics of violence, venereal disease, illegitimacy and the ill-treatment of children by their parents. They were keen to know about inheritance and why some families tend to be tall and some short, why brothers and sisters may be alike in some respects and not in others such as hair and eye colour, why children tend to resemble their parents and why some babies are born deformed. In these circumstances it is easy to guide the discussion towards the advantages of a secure and stable family life as the basis for happy and civilised living. Though this is interesting and stimulating work it is very time-consuming, not only in conducting the courses in schools, but in preparation and planning. Various firms have been most generous in giving foodstuffs, clothing and other materials for demonstration purposes. Additional schools have asked for courses to be held and those schools already receiving courses have asked for more. We shall extend this activity as circumstances allow and in 1967 it is intended to hold a course for boys.

The pregnant schoolgirl presents problems for which no ideal solution exists; one of these is the difficulty of continuing her education during the pregnancy and after, for whether she keeps her baby or not she will be poorly equipped to maintain herself. Home tuition with help from the school in the matter of books and similar material is the best that can be managed as a rule, though recently one girl remained at school until near the end of her sixth month of pregnancy, while another continued her education at a convent school. There are fortunately only a few schoolgirl pregnancies each year in the city, but these cause a great deal of misery for the parents, for the girls themselves and not least for their babies; there is at least a possibility that health education might help prevent some of these tragedies.

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# Belfast Grant-Aided Schools

TABLE E 1

Type of School		Number	Pupils
Nursery Schools and Classes		12	438
Primary†	County Primary Schools	64	25,978
	Voluntary Primary Schools under Roman Catholic Management	58	18,677
	Special Schools	9	1,042
	Day Instruction Centres	4	358
Secondary‡	County Secondary Schools	19	14,301
	Voluntary Secondary Schools †(Participating)	23	18,216
	Voluntary Secondary Schools †(Non-participating)‡‡	3	1,972
Total		192	80,982

† These groups of schools are considered separately where possible in the following tables.

‡‡ These schools conduct their own schemes of medical and dental inspection and treatment under the provision of Section 42 (6) of the Education (Amendment) Act (N.I.), 1956.

† Includes preparatory school in most cases.

## School Medical Inspections

TABLE E 2

Type of School	Sex	System of Examination	Age Groups								Special examinations	Re-examinations	Totals
			Nursery	I	II	III	IV Inter- view	IV Exam- ination	V	Totals			
Primary	Boys	Selective	—	3,617	265	145	—	23	—	4,050	58	6,252	10,360
	Girls		—	3,668	221	118	—	12	—	4,019	69	5,887	9,975
Secondary	Boys	Selective	—	88	4	38	1,918	832	1	2,881	—	2,812	5,693
	Girls		—	111	18	56	1,142	367	4	1,698	7	2,949	4,654
Primary	Both	Routine	81	341	139	187	—	—	—	748	34	591	1,373
Secondary	Both	Routine	—	—	—	84	—	603	—	687	28	656	1,371
Special	Both	Routine	33	22	128	126	—	139	10	458	—	—	458
Nursery	Both	Routine	405	—	—	—	—	—	—	405	—	—	405
Totals	Both	Both	519	7,847	775	754	3,060	1,976	15	14,946	196	19,147	34,289

## Attendance of Parents at Routine Medical Inspections

TABLE E 3

Age Group	Primary		Secondary	
	Boys	Girls	Boys	Girls
Entrants	2,614 (72.3%)	2,709 (73.9%)	44 (50.0%)	64 (57.7%)
II	108 (40.8%)	105 (47.5%)	2 (50.0%)	4 (22.2%)
III	35 (24.1%)	35 (29.7%)	— —	2 (3.6%)
IV	— —	— —	— —	1 (0.3%)
V	— —	— —	— —	—
Totals	2,757 (68.1%)	2,849 (70.9%)	46 (1.6%)	71 (4.2%)
	5,606 (69.5%)		117 (2.6%)	
	5,723 (45.2%)			

TABLE E 4 Action to be Taken as a Result of Routine Medical Inspection

Age Group	Home visits		To Family Doctor		To School Clinic		To Eye Specialist		To E.N.T. Specialist		To Hospital		To Physio-therapist		To Speech Therapist		To Audio-metrist		Other action	
	Boys	Girls	Boys	Girls	Girls	Boys	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Entrants	166	146	70	52	236	243	292	321	5	4	16	5	84	67	34	24	47	49	96	98
II	16	13	3	3	22	18	32	29	—	2	1	—	6	2	7	3	6	1	9	12
III	5	10	3	2	13	18	10	18	—	2	—	1	—	3	1	1	1	3	5	11
IV	17	7	11	13	42	23	150	79	—	—	1	1	17	6	2	—	5	5	61	43
Exam.	7	1	11	6	28	28	100	29	1	1	1	2	10	3	—	1	6	4	24	8
V	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	211	177	98	76	341	330	584	476	6	8	19	9	117	81	44	29	65	62	195	172
	388		174		671		1,060		14		28		198		73		127		367	

TABLE E 5 History of Infectious Diseases

Age Group	Number Examined	Number and Percentage giving History of										Chorea	Rheumatic Fever
		Measles	German Measles	Chicken-Pox	Scarlet Fever	Diphtheria	Mumps	Whooping Cough					
Entrants	7,484	5,714 (76.4%)	1,866 (24.9%)	2,588 (34.6%)	363 (4.9%)	2 (0.03%)	1,756 (23.5%)	1,802 (24.1%)				6 (0.08%)	3 (0.04%)
II	508	427 (84.1%)	146 (28.7%)	248 (48.8%)	21 (4.1%)	—	175 (34.5%)	141 (27.8%)				—	—
III	357	318 (89.1%)	109 (30.5%)	194 (54.3%)	23 (6.4%)	1 (0.3%)	174 (48.7%)	121 (33.9%)				—	1 (0.3%)
IV	4,294	4,006 (93.3%)	1,707 (39.8%)	2,434 (56.7%)	423 (9.9%)	10 (0.2%)	2,377 (55.4%)	2,248 (52.4%)				7 (0.2%)	24 (0.6%)
V	5	4 (80.0%)	2 (40.0%)	4 (80.0%)	1 (20.0%)	—	2 (40.0%)	2 (40.0%)				—	1 (20.0%)
Totals	12,648	10,469 (82.8%)	3,830 (30.3%)	5,468 (43.2%)	831 (6.6%)	13 (0.1%)	4,484 (35.5%)	4,314 (34.1%)				13 (0.1%)	29 (0.2%)



TABLE E 6(a) Estimates of Height (ins.) Weight (lbs.) of Boys according to age from Routine Medical Inspections, Year 1966

Estimates, etc.	Age Groups in years											
	4-	5-	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-
	317	2,450	937	131	58	87	116	50	11	27	41	4
Number of boys measured												
	Height											
Mean	41.2	43.1	44.9	46.7	49.1	52.3	53.7	54.4	58.4	57.9	61.9	65.3
Standard error of mean	0.11	0.04	0.08	0.22	0.31	0.26	0.27	0.38	0.85	0.60	0.52	1.13
Standard deviation	2.01	2.14	2.32	2.46	2.38	2.43	2.93	2.66	2.81	3.12	3.30	2.25
Co-efficient of variation	4.87	4.96	5.18	5.25	4.84	4.65	5.45	4.89	4.81	5.39	5.32	3.45
	Weight											
Mean	39.6	42.4	45.5	49.3	56.3	65.0	68.5	75.8	88.2	87.9	102.3	111.0
Standard error of mean	0.27	0.11	0.20	0.64	1.05	1.23	1.15	2.03	4.80	3.20	2.60	5.08
Standard deviation	4.85	5.22	5.98	7.26	8.01	11.46	12.37	14.38	15.93	16.63	16.65	10.15
Co-efficient	12.25	12.32	13.14	14.74	14.24	17.65	18.07	18.98	18.06	18.93	16.27	9.14

TABLE E 6(b) Estimates of Height (ins.) and Weight (lbs.) of Girls according to age from Routine Medical Inspections, Year 1966

Estimates, etc.	Age Groups on Years											
	4-	5-	6-	7-	8-	9-	10-	11-	12-	13-	14-	15-
	343	2,493	942	143	44	54	91	31	18	7	38	7
Number of girls measured												
	</											

# Defects Discovered at Routine Medical Inspection

TABLE E 7

Defect		Age Group	Defective for treatment	Per 1,000	Defective for observation	Per 1,000	Total defective	Per 1,000
Skin		Entrants	48	6.4	152	20.3	200	26.7
		Other ages	14	6.7	57	27.1	71	33.8
		Interviews	30	9.8	36	11.8	66	21.6
		Total	92	7.3	245	19.4	337	26.7
Eyes	(a) vision	Entrants	648	86.6	1,619	216.3	2,267	302.9
		Other ages	268	127.4	534	253.8	802	381.3
		Interviews	278	90.9	649	212.1	927	302.9
		Total	1,194	94.4	2,802	221.5	3,996	315.9
	(b) squint	Entrants	152	20.3	259	34.6	411	54.9
		Other ages	15	7.1	48	22.8	63	29.9
		Interviews	8	2.6	59	19.3	67	21.9
		Total	175	13.8	366	28.9	541	42.8
	(c) other	Entrants	21	2.8	1,044	139.5	1,065	142.3
		Other ages	10	4.8	55	26.1	65	30.9
		Interviews	7	2.3	25	8.2	32	10.5
		Total	38	3.0	1,124	88.9	1,162	91.9
Ears	(a) hearing	Entrants	187	25.0	188	25.1	375	50.1
		Other ages	57	27.1	40	19.0	97	46.1
		Interviews	19	6.2	13	4.3	32	10.5
		Total	263	20.8	241	19.1	504	39.9
	(b) otitis media	Entrants	21	2.8	145	19.4	166	22.2
		Other ages	12	5.7	15	7.1	27	12.8
		Interviews	11	3.6	6	2.0	17	5.6
		Total	44	3.5	166	13.1	210	16.6
	(c) other	Entrants	104	13.9	120	16.0	224	29.9
		Other ages	28	13.3	18	8.6	46	21.9
		Interviews	3	1.0	4	1.3	7	2.3
		Total	135	10.7	142	11.2	277	21.9
Nose and Throat		Entrants	105	14.0	1,274	170.2	1,379	184.3
		Other ages	13	6.2	183	87.0	196	93.2
		Interviews	15	4.9	51	16.7	66	21.6
		Total	133	10.5	1,508	119.2	1,641	129.7
Speech		Entrants	77	10.3	176	23.5	253	33.8
		Other ages	14	6.7	29	13.8	43	20.4
		Interviews	3	1.0	18	5.9	21	6.9
		Total	94	7.4	223	17.6	317	25.1
Cervical glands		Entrants	8	1.1	350	46.8	358	47.8
		Other ages	2	1.0	33	15.7	35	16.6
		Interviews	—	—	9	2.9	9	2.9
		Total	10	0.8	392	31.0	402	31.8
Heart and circulation		Entrants	96	12.8	211	28.1	307	41.0
		Other ages	12	5.7	55	26.1	67	31.8
		Interviews	2	0.7	29	9.5	31	10.1
		Total	110	8.7	295	23.3	405	32.0
Lungs	(a)	Entrants	124	16.6	366	48.9	490	65.5
		Other ages	22	10.5	88	41.8	110	52.3
		Interviews	7	2.3	31	10.1	38	12.4
		Total	153	12.1	485	38.4	638	50.4
	(b) pulmonary tuberculosis	Entrants	1	0.1	3	0.4	4	0.5
		Other ages	—	—	1	0.5	1	0.5
		Interviews	—	—	1	0.3	1	0.3
		Total	1	0.1	5	0.4	6	0.5
Development		Entrants	47	6.3	466	62.3	513	68.6
		Other ages	25	11.9	44	20.9	69	32.8
		Interviews	10	3.3	15	4.9	25	8.2
		Total	82	6.5	525	41.5	607	48.0

**TABLE E 7** (*continued*)

Defect	Age Group	Defective for treatment	Per 1,000	Defective for observation	Per 1,000	Total defective	Per 1,000		
Orthopaedic (a) posture	Entrants	2	0.3	18	2.4	20	2.7		
	Other ages	12	5.7	7	3.3	19	9.0		
	Interviews	1	0.3	5	1.6	6	2.0		
	Total	15	1.2	30	2.4	45	3.6		
	(b) feet	Entrants	133	17.8	170	22.7	303	40.5	
		Other ages	24	11.4	34	16.2	58	27.6	
		Interviews	14	4.6	16	5.2	30	9.8	
		Total	171	13.5	220	17.4	391	30.9	
	(c) other	Entrants	27	3.6	73	9.8	100	13.4	
		Other ages	9	4.3	26	12.4	25	16.6	
		Interviews	3	1.0	14	4.6	17	5.6	
		Total	39	3.1	113	8.9	152	12.0	
Nervous system	(a) epilepsy	Entrants	2	0.2	19	2.5	21	2.8	
		Other ages	3	1.4	6	2.9	9	4.3	
		Interviews	—	—	3	1.0	3	1.0	
		Total	5	0.4	28	2.2	33	2.6	
	(b) other	Entrants	1	0.1	41	5.5	42	5.6	
		Other ages	1	0.5	10	4.8	11	5.2	
		Interviews	2	0.7	4	1.3	6	2.0	
		Total	4	0.3	55	4.4	59	4.7	
	Psychological	(a) development	Entrants	69	9.2	83	11.1	152	20.3
			Other ages	7	3.3	181	86.0	188	89.4
			Interviews	1	0.3	28	9.2	29	9.5
			Total	77	6.1	292	23.1	369	29.2
(b) stability		Entrants	26	3.5	63	8.4	89	11.9	
		Other ages	9	4.3	15	7.1	24	11.4	
		Interviews	—	—	2	0.7	2	0.7	
		Total	35	2.8	80	6.3	115	9.1	
Tuberculosis—non-pulmonary		Entrants	—	—	1	0.1	1	0.1	
		Other ages	—	—	1	0.5	1	0.5	
		Interviews	—	—	1	0.3	1	0.3	
		Total	—	—	3	0.2	3	0.2	
Other defects	Entrants	35	4.7	114	15.2	149	19.9		
	Other ages	6	2.9	30	14.3	36	17.1		
	Interviews	20	6.5	25	8.2	45	14.7		
	Total	61	4.8	169	13.4	230	18.2		

The numbers of children seen were:—Entrants 7,484, Other ages 2,104, Interviews 3,060, Total 12,648.

The visual acuity could not be accurately assessed in 138 entrants; in this table these are included in "Eyes (a) vision" among the 1,619 defective for observation.



Visual Acuity

TABLE E 8

(a) schoolchildren without glasses

	Left eye										Right eye
	Visual acuity	6/6	6/9	6/12	6/18	6/24	6/36	6/60	<6/60	Totals	
Right eye	6/6	8,592	429	136	59	30	28	15	15	9,304	
	6/9	395	1,122	141	31	14	8	6	4	1,721	
	6/12	104	111	298	63	22	14	7	2	621	
	6/18	55	32	66	143	39	18	2	2	357	
	6/24	17	21	21	30	66	11	4	1	171	
	6/36	15	13	12	20	21	70	12	3	166	
Left eye	6/60	16	3	2	6	6	14	54	4	105	
	<6/60	4	—	8	5	1	3	6	38	65	
	Totals	9,198	1,731	684	357	199	166	106	69	12,510	

(b) schoolchildren with glasses

	Left eye										Right eye
	Visual acuity	6/6	6/9	6/12	6/18	6/24	6/36	6/60	<6/60	Totals	
Right eye	6/6	350	61	37	13	4	5	2	2	474	
	6/9	58	112	42	9	1	2	—	—	224	
	6/12	33	28	65	10	6	1	—	1	144	
	6/18	7	9	18	16	2	2	1	—	55	
	6/24	5	2	5	3	4	—	—	—	19	
	6/36	3	2	4	1	1	—	—	—	11	
Left eye	6/60	2	1	—	—	—	—	—	—	3	
	<6/60	1	1	—	1	—	—	—	—	3	
	Totals	459	216	171	53	18	10	3	3	933	

TABLE E 9

Nutrition

Age Group	NORMAL (A)		SUB-NORMAL (B)		BAD (C)	
	Boys	Girls	Boys	Girls	Boys	Girls
Entrants	3,507 (94.7%)	3,496 (92.5%)	180 (4.9%)	264 (7.0%)	18 (0.5%)	19 (0.5%)
II	258 (95.9%)	218 (91.2%)	11 (4.1%)	21 (8.8%)	— —	— —
III	181 (98.9%)	146 (94.8%)	2 (1.1%)	8 (5.2%)	— —	— —
IV	202 (49.8%)	188 (46.3%)	12 (3.0%)	3 (0.7%)	1 (0.3%)	— —
V	1 (100.0%)	2 (100.0%)	— —	— —	— —	— —
Totals	4,149 (94.9%)	4,050 (92.8%)	205 (4.7%)	296 (6.8%)	19 (0.4%)	19 (0.4%)

TABLE E 10

Colour Vision

Colour Vision	Boys		Girls		Total	
Normal	4,626	(96.2%)	4,169	(98.5%)	8,795	(97.3%)
Defective—safe	72	(1.5%)	63	(1.5%)	135	(1.5%)
Defective—unsafe	110	(2.3%)	2	(0.1%)	112	(1.2%)
Total	4,808		4,234		9,042	

TABLE E 11

Tuberculin Tests

Age	Unvaccinated Persons			Vaccinated Persons		
	Tested	Negative	Positive	Tested	Negative	Positive
0-4	329	324 (98.5%)	5 (1.5%)	2	— —	2
5	31	30 (96.8%)	1 (3.2%)	1	— —	1
6	31	30 (96.8%)	1 (3.2%)	1	— —	1
7	25	23 (92.0%)	2 (8.0%)	3	— —	3
8	38	36 (94.7%)	2 (5.3%)	23	— —	23
9	626	586 (93.6%)	40 (6.4%)	379	15 (4.0%)	364 (96.0%)
10	1,682	1,580 (93.9%)	102 (6.1%)	825	36 (4.4%)	789 (95.6%)
11	464	417 (89.9%)	47 (10.1%)	208	17 (8.2%)	191 (91.8%)
12	61	55 (90.2%)	6 (9.8%)	43	1 (2.3%)	42 (97.7%)
13	130	113 (86.9%)	17 (13.1%)	75	4 (5.3%)	71 (94.7%)
14	276	224 (81.2%)	52 (18.8%)	87	3 (3.4%)	84 (96.6%)
15	71	56 (78.9%)	15 (21.1%)	30	— —	30
16	27	13 (48.1%)	14 (51.9%)	2	— —	2
17	25	17 (68.0%)	8 (32.0%)	5	— —	5
18	34	21 (61.8%)	13 (38.2%)	42	— —	42
19	27	22 (81.5%)	5 (18.5%)	56	— —	56
20	17	11 (64.7%)	6 (35.3%)	7	— —	7
21+	46	18 (39.1%)	28 (60.9%)	16	— —	16
Totals	3,940	3,576 (90.8%)	364 (9.2%)	1,805	76 (4.2%)	1,729 (95.8%)

# Re-examinations

TABLE E 12

Defects for which Re-examined	For treatment	For observation	Cured	Totals
Skin	62	168	167	397
Eyes (a) vision	2,400	6,972	1,707	11,079
(b) squint	238	739	26	1,003
(c) other	45	78	64	187
Ears (a) hearing	811	653	448	1,912
(b) otitis media	108	162	127	397
(c) other	33	55	55	198
Nose and throat	268	1,191	995	2,454
Speech	189	372	261	822
Cervical glands	27	111	50	190
Heart and circulation	171	563	212	946
Lungs (a)	123	490	328	941
(b) pulmonary tuberculosis	—	1	—	1
Development	51	101	58	210
Orthopaedic (a) posture	18	37	52	107
(b) feet	111	192	195	498
(c) other	44	202	129	375
Nervous system (a) epilepsy	15	61	7	83
(b) other	24	113	50	187
Psychological (a) development	68	575	69	712
(b) stability	110	177	175	462
Tuberculosis—non-pulmonary	1	3	—	4
Other defects	247	411	305	963
Totals	5,221	13,427	5,480	24,128

24,128 defects in 19,147 children (primary 12,730 and secondary 6,417)

# Clinic Examinations

TABLE E 13

Reason for examination	Number of examinations	Per cent
Skin	602	3.0
Eyes (a) vision	405	2.0
(b) squint	52	0.3
(c) other	153	0.8
Ears (a) hearing	1,752	8.8
(b) otitis media	197	1.0
(c) other	299	1.5
Nose and throat	604	3.0
Speech	276	1.4
Cervical glands	44	0.2
Heart and circulation	284	1.4
Lungs (a)	672	3.4
(b) pulmonary tuberculosis	5	0.03
Development	240	1.2
Orthopaedic (a) posture	12	0.06
(b) feet	178	0.9
(c) other	137	0.7
Nervous system (a) epilepsy	42	0.2
(b) other	82	0.4
Psychological (a) development	558	2.8
(b) stability	332	1.7
Tuberculosis non-pulmonary	3	0.02
Other defects	1,007	5.1
B. C. G. vaccination	3,100	15.6
Tuberculin skin test	5,591	28.2
Pre-anaesthetic examination	3,203	16.2
Total	19,830	100.0



TABLE E 14

Special Educational Treatment

Handicap	At special day school		At special residential school		At normal school		At no school		At home tuition		Totals	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Blind	3	5	1	3	—	—	3	1	—	—	7	9
Partially sighted	16	11	4	1	26	22	5	3	—	—	51	37
Deaf	4	4	2	1	—	—	5	7	—	—	11	12
Partially deaf	33	22	5	2	204	149	2	4	—	—	244	177
Delicate	72	58	1	—	73	61	4	2	6	11	156	132
Educationally subnormal	362	236	21	7	991	553	34	20	—	2	1,408	818
Epileptic	20	15	—	1	71	60	6	4	—	1	97	81
Maladjusted	71	24	11	1	125	63	1	—	2	—	210	88
Physically handicapped	84	61	7	11	115	98	22	6	8	8	236	184
Speech defect	57	22	2	2	893	355	1	—	—	—	953	379
Total handicaps	722	458	54	29	2,498	1,361	83	47	16	22	3,373	1,917
	1,180		83		3,859		130		38		5,290	
Total pupils	515	348	37	22	2,291	1,263	58	32	14	20	2,915	1,685
	863		59		3,554		90		34		4,600	

5,290 handicaps in 4,600 pupils (2,915 boys, 1,685 girls). Of these 546 children have 2 handicaps, 64 have 3 handicaps, and 5 have 4 handicaps.

TABLE E 15

Single Handicaps

Number of children affected	Handicap
15	Blind
68	Partially sighted
18	Deaf
313	Partially deaf
241	Delicate
1,662	Educationally sub-normal
109	Epileptic
54	Maladjusted
320	Physically handicapped
1,186	Speech defect
3,986	Total

# Dual Handicaps

TABLE E 16

Handicap	Blind	Partially sighted	Deaf	Partially deaf	Delicate	E. S. N.	Epileptic	Maladjusted	Physically handicapped	Speech Defect
Speech defect	—	—	—	6	—	99	—	2	7	114
Physically handicapped	—	4	3	3	2	53	2	5	79	
Maladjusted	—	—	1	2	3	195	3	211		
Epileptic	—	1	—	1	2	45	54			
E. S. N.	1	8	1	69	26	497				
Delicate	—	—	—	2	35					
Partially deaf	—	—	—	83						
Deaf	—	—	5							
Partially sighted	—	13								
Blind	1									

Showing the distribution of 1,092 handicaps among the 546 children who have two handicaps.

Multiple Handicaps

TABLE E 17

Number of children affected	Categories of handicaps coinciding		
	First	Second	Third
1	P. sighted	P. deaf	E.S.N.
1	P. sighted	E.S.N.	Maladjusted
2	P. sighted	E.S.N.	P. handicapped
1	P. sighted	E.S.N.	Speech defect
4	P. deaf	Delicate	E.S.N.
9	P. deaf	E.S.N.	Maladjusted
2	P. deaf	E.S.N.	P. handicapped
5	P. deaf	E.S.N.	Speech defect
1	P. deaf	Epileptic	P. handicapped
1	Delicate	E.S.N.	Epileptic
3	Delicate	E.S.N.	Maladjusted
2	Delicate	E.S.N.	Speech defect
1	Delicate	P. handicapped	Speech defect
4	E.S.N.	Epileptic	Maladjusted
5	E.S.N.	Epileptic	P. handicapped
3	E.S.N.	Epileptic	Speech defect
1	E.S.N.	Maladjusted	P. handicapped
13	E.S.N.	Maladjusted	Speech defect
5	E.S.N.	P. handicapped	Speech defect
64	Total with triple handicaps		

	First	Second	Third	Fourth
1	P. sighted	P. deaf	E.S.N.	P. handicapped
1	P. sighted	E.S.N.	Epileptic	P. handicapped
1	P. deaf	E.S.N.	Maladjusted	P. handicapped
1	P. deaf	E.S.N.	P. handicapped	Speech defect
1	Delicate	E.S.N.	Maladjusted	Speech defect
5	Total with quadruple handicaps			

Intelligence Quotients of E.S.N. Pupils

TABLE E 18

I.Q.	<45	45-	50-	55-	60-	65-	70-	75	80-	90-	100-	110-	120+	Totals
Boys	21	14	33	47	72	76	133	166	427	267	119	26	7	1,408
Girls	14	7	27	29	51	87	91	133	214	119	38	6	2	818
Both	35	21	60	76	123	163	224	299	641	386	157	32	9	2,226



# Fleming Fulton School

TABLE E 19

Reasons for admission	Belfast pupils			Other pupils		
	Boys	Girls	Total	Boys	Girls	Total
Cerebral palsy	34	21	55	15	17	32
Congenital deformities	6	3	9	1	2	3
Haemophilia	—	—	—	1	—	1
Hydrocephalus	1	2	3	1	1	2
Kernicterus	1	—	1	2	—	2
Muscular dystrophy	1	—	1	2	1	3
Osteochondrosis	1	—	1	—	—	—
Polio myelitis	1	1	2	—	1	1
Spina bifida	5	5	10	6	—	6
Total	50	32	82	28	22	50

# Cedar Lodge School

TABLE E 20

Reasons for admission	Boys	Girls	Total
Asthma	14	4	18
Bronchiectasis	1	3	4
Bronchitis	3	3	6
Coeliac disease	—	1	1
Debility	—	2	2
Epilepsy	—	1	1
Heart disease (congenital)	2	2	4
Heart disease (rheumatic)	—	3	3
Hemiplegia	—	1	1
Hypospadias	2	—	2
Hypothyroidism	1	—	1
Injury	2	—	2
Maladjusted	1	2	3
Meningocele	—	1	1
Nephritis	—	2	2
Osteomyelitis	—	1	1
Otitis media	1	—	1
Turner's syndrome	—	1	1
Number admitted during 1966	27	27	54
Number discharged during 1966	23	24	47
Average duration of stay in months	48	32	40
Total on roll at 31st December, 1966	87	82	169

TABLE E 21

## Miscellaneous

Ultra-violet Light Treatment	1,789	
Physiotherapy:		
Children treated	896	
Total attendances	9,819	
Cases discharged	343	
Waiting list	—	
Speech Therapy:		
Total attendances	7,252	
Audiometry:		
Children sweep tested at school	10,852	
Children failing sweep test	986	
Children individually tested	695	
Children failing individual test	661	
Children referred to specialist	125	
Vision Tests:		
Children tested by health visitors	7,494	
Cleanliness:		
Children inspected	58,941	
Children found to have nits	3,166	(5.4%)
Children found to have vermin	1,199	(2.0%)
Children cleansed at clinics	2,594	
B.C.G. Vaccinations:		
Vaccinations at School Clinics	3,100	
Vaccinations by other authorities	3,059	
Children tuberculin tested	3,940	
Children showing positive reaction	364	(9.2%)
Children showing negative reaction	3,576	(90.8%)
Vaccinated children retested—positive	1,729	(95.8%)
Vaccinated children retested—negative	76	(4.2%)
Nurses' Home Visits	13,013	
Nurses' School Visits (other than routine inspections)	1,378	
Medical Officers' Visits	166	
Eye Specialist:		
Children refracted	6,773	
Children given post-mydratic examination	3,825	
Children examined for other eye conditions	788	
Children referred for orthoptic treatment	120	
Paediatrician:		
Children examined at school clinics	—	
Children examined at special schools	182	
Psychiatrist:		
New cases	16	
Children examined at special schools	182	
Psychiatrist:		
New cases	16	
Total attendances	93	
Surgeon:		
Children examined at special schools	130	
General Anaesthetics	3,203	
Education Act Sections 32 and 53:		
Children reported to N.I. Hospitals Authority (Section 32 A)	4	
Children reported to Welfare Authority (Section 32 B)	71	
Children reported to N.I. Hospitals Authority (Section 53)	45	
Youth Employment:		
Children examined under Employment Bye-Laws	553	
Children found unfit for employment	6	
Reports to Youth Employment Service on school-leavers	125	

# REPORT OF THE CHIEF DENTAL OFFICER FOR THE YEAR 1966

## Dental Inspection in Schools

The pupils of all primary and secondary schools within the area of the Belfast County Borough were provided with one dental inspection during the course of the year and additionally, twice yearly-dental inspection was provided for pupils of nursery and special schools. The total number of children examined was 73,511 (or 93% of the total roll) and 36,771 (50%) were found to be dentally defective. Thus, compared with the years 1964 and 1965, when the defective rates were 57.5% and 56.5% respectively, a further significant fall in the defective rate has to be recorded. Consent to dental care was given by the parents of 33,885 children, that is, 92.2% of those in need of care, of which total 9,722 (28.7%) elected to attend at the department's clinics and 24,163 (71.3%) preferred to make their own private arrangements. These figures show a 1% increase over the previous year in those electing to attend at school clinics.

## Attendances at Clinics

In addition to the 9,722 children attending clinics as a result of school dental inspection, a further 438 children sought care without notification, making an total of 10,160 children who received attention. Compared with the previous year, this figure is a reduction of 5.5%, which may well be accounted for by the fall in the defective rate. Periodic check inspections totalling 9,093 were provided at clinics during the year.

## Treatment

The department was able to meet all requests for treatment and the filling rate at 2.3 and the extraction rate at 0.7 per child remained as in the previous year. In the orthodontic section, 339 children were provided with appliances and treatment was completed for 120 children. These figures show marginal increases over the year 1965.

The orthodontic service, now in its fifth year, has encountered serious difficulties in the retention and acquisition of qualified staff. At the peak of its existence some two years ago, the department had as orthodontic staff two of its own Dental Officers qualified as orthodontists, one part-time orthodontist and a further two Dental Officers who had attended an extended post-graduate course in orthodontics at the School of Dentistry. The first two Dental Officers have since resigned and after considerable difficulty it was only found possible to recruit one further part-time recently qualified orthodontist with limited availability. It would have been possible for the department, with this reduced staff (equal to little more than half its original strength) to continue to function in a modest way, but unfortunately a more serious set back has occurred in the resignation of the original part-time orthodontist. So much of the department's activities depended on the experience of this officer that it is difficult to see how the orthodontic service can any longer function as an effective unit.

The basic reason for the difficulties encountered lies in the absence of any recognised scale of salaries and fees for orthodontists, and while at the outset in 1961 it was realised that the lack of a suitable salary structure might create difficulties, it was felt reasonable to proceed with the organisation of the service in the hope that an adequate salary structure would materialise. Five years have now elapsed and this has not happened. An orthodontic service is not a luxury service — as the lay mind might be inclined to think. It is an essential part of children's dentistry and contributes substantially to the dental health and well-being of children. Mal-positioned teeth may have an adverse effect upon children in many ways, not the least being that they constitute a serious factor in tooth decay and, at a time when so much effort is being expended in dental health education, it is difficult to understand why delay in the creation of a salary structure for orthodontists should continue.

## Maternity and Child Health

In this section, the department continues to be involved with the pre-school child alone and it will be recalled that the annual report for the year 1965 forecast a more encouraging trend in 1966: this in fact has materialised. The number of pre-school children examined has risen from 525 in 1965 to 1,093 in 1966, an increase of 108%. Examination disclosed that 55% of these children were dentally defective and 95% of the latter attended at school clinics with their parents and received advice and care. This is an increase of 44% over the 1965 totals.



It is current practice for mothers to attend the clinic with their young children to receive detailed advice on all aspects of diet and oral hygiene. Regular three-monthly visits for check examination are encouraged and, while the department has had some success in this practice, 366 check examinations fall considerably short of what should be expected. However, one cannot hope to achieve perfection at this early stage of the scheme's existence; rather must it be hoped that the practices advised will in time become acceptable.

### General Remarks

The aspect of this annual report which has given most pleasure to its author is the encouraging trend shown in the care of the pre-school child. Admittedly the number of children examined is only a fraction of the total available, but the absence of clinics in the outer residential areas of the city militates against substantial expansion of the pre-school dental service. However, the fact of a 55% defective rate in this category of child points to the necessity for such a service and for the strongest possible action to use all available resources to further the aims of this service.

A house is only as good as its foundations. There is surely an analogy in the dental sphere, in that the permanent dentition is only as good as the deciduous dentition. The foundations for a sound deciduous dentition are laid down prior to the birth of the child and afterwards during the first two years of life. It is vital therefore that the mother should be aware of and should apply knowledge previously imparted to her in regard to diet and oral hygiene. If this is not done, the deciduous dentition may not survive to play its part in the establishment of the permanent dentition. The child already brought up on incorrect dietary habits and lack of effective oral hygiene cannot suddenly be induced to accept the wholesale change necessary for good dental health. The dental staff at the department's clinics are playing their part in persuading mothers to use the pre-school child service but the greatest contribution must come from Health Visitors and nursing staff at Maternity and Child Health Clinics. In this respect Lincoln Avenue and Mountcollyer Street Clinics have provided an excellent example of such team work, making a substantial contribution to this year's welcome results.

Once again may I in conclusion express my appreciation to Principals, Teachers, Medical, Dental and Administrative Staff for the high degree of co-operation extended to me during the year.

S. R. SHEANE, L.D.S.,

*Chief Dental Officer.*

## Dental Inspection

**TABLE F 1**

Participating schools		*Special	*Nursery	Non Participating	Pre-School
Total on school rolls	79,010	1,042	438	1,972	—
Total inspected	73,511	1,650	754	1,972	1,093
Age groups 5 to 7	19,407	—	—	—	—
Other age groups	54,104	—	—	—	—
Total defective	36,771	759	287	604	601
Defective percentage	50	46	36.7	30.6	54.9
Consenting to treatment	33,885	665	237	—	601
By Health Department	9,722	371	95	—	601
By own dentist	24,163	294	142	—	—
Appointments issued	9,722	371	95	—	601
Inspection sessions	490	18	12	—	64
Clinic inspections	9,093	—	—	—	366

\* Special and Nursery Schools inspected twice annually. Figures are an extract from participating totals.

## Dental Treatment

**TABLE F 2**

Participating schools		*Special	*Nursery	Pre-school	Totals
Extractions					
Temporary teeth	5,377	86	35	504	5,881
Permanent teeth	1,467	68	—	—	1,467
Total	6,844	154	35	504	7,348
Anaesthetics					
General	3,203	74	16	272	3,475
Local	2,906	27	3	5	2,911
Total	6,109	101	19	277	6,386
Fillings					
Temporary teeth	7,350	86	77	883	8,233
Permanent teeth	16,972	527	—	1	16,973
Total	24,322	613	77	884	25,206
Root canal therapy	26	—	—	—	26
Crowns	1	—	—	—	1
Gingivectomy	11	—	—	—	—
Scaling and polishing	1,917	61	3	192	2,109
Dressings	1,337	54	7	56	1,393
Other operations	1,044	26	6	76	1,120
X-Ray films	560	9	—	—	560
Partial dentures provided	26	4	—	—	26
Total treatments	42,201	1,022	147	1,989	44,190
Individual treated	10,160	283	38	568	10,728
Total treatment courses	11,748	217	33	546	12,294
Total treatment visits	25,224	647	97	2,024	27,248
Total treatment sessions	4,660	—	—	22	4,682
<b>Orthodontics:</b>					
Patients provided with appliances	339	6	—	—	339
Total appliances provided	458	9	—	—	458
Treatments completed	120	2	—	—	120
Treatments suspended	24	2	—	—	24
Total treatment visits	3,550	80	—	—	3,550
Total sessions	314	—	—	—	314

\* Figures extracted from participating schools totals.

TABLE F 3

Clinic Accommodation	
North Belfast	{ Mountcollyer Street Lincoln Avenue
South Belfast	Academy Street
East Belfast	Cherryville Street
West Belfast	Cupar Street
Mobile clinics	Nil

TABLE F 4

Staff Complement	
Chief Dental Officer	1
Clinic Dental Officers	4
Dental Officers (full-time)	8
Dental Officers (part-time)	2
Orthodontists (part-time)	2
Total (expressed as full-time equivalent)	14.2
Anaesthetists (part-time)	3



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